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Stretch your mind and exercise your intellect – we reveal the best C64 puzzle games ever... page 26.

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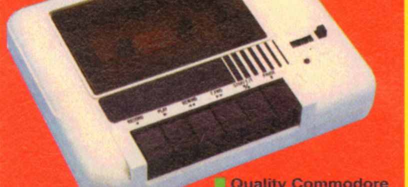

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FORMAT

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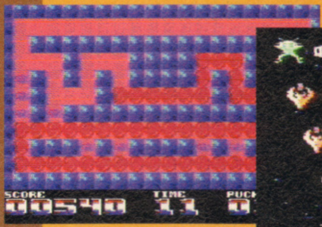
33 LOADS-A-PREVIEWS

We've got news and screenshots of 10, count 'em, 10 games that should be heading your way soon. Eight of 'em are from Germany, and two from the UK and most of 'em look corkeringly wholesome.



New games from the UK and Germany.

Master *Mayhem* in minutes thanks to Gamebusters.

17 GAMEBUSTERS

Five pages packed to bursting point with games tips, hints and listings, including:

- SLEEPWALKER – everything you need to know to make your way through level one.
- SOS – your gaming queries get answered.
- LISTOMANIA POKERAMA – the secrets of infinity revealed thanks to our arcane knowledge of listings.

Sleepwalker
© OCEAN SOFTWARE LTD., 1992

Complete it in your sleep.

32 THE ULTIMATE UPGRADES?

Right, no kidding – there's hardware available in the US that could really make your C64 a serious contender for those 16-bit machines. We tell you the specs – you decide whether you want to be a part of a computing revolution.

22 TECHIE TIPS

The world famous techie questions and answers session with a difference. Well, the questions and answers are different to last month. What more do you want? Blood?

11 ON THE POWERPACK…

THE LEGEND OF SINBAD

Ah, the mysteries of the ancient Far East. It was a time a time when men wore silk plus fours and princesses needed to be rescued. And you can experience those times in this totally authentic, imitation Far Eastern style platformer.

REAXION

Puzzle games are the theme of the issue, so we had to give away a puzzle game, really, didn't we?

MEAN MACHINE CODE

An exclusive sample of some of the most impressive demos available for the C64.

COMMODORE FORMAT
FULL GAME
THE LEGEND OF SINBAD
MEAN MACHINE
MEGA DEMO
POWER
PLUS
PACK
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READER GAME
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13 GAME DIARY: THE MAKING OF 10TH DAN

By Jon Wells. An insider look at the creation of a game. The personal touches make this a gripping read.

26 THE BEST C64 PUZZLE GAMES EVER

By Trenton Webb. A meticulously-researched work of genius by a writer whose prose style owes a lot to early reformation comedy.

31 THIS 'ARD

By Russ Michaels. The author conveys his fascination for US hardware as the saviour of the C64 with almost religious zeal. Essential reading.

GAMES

17 GAMEBUSTERS

Compiled by Andy Roberts. An impressive compendium of games tips from a long-recognised master of the art.

33 THE EUROPEAN INVASION CONTINUES

By Dave Golder. The prolific hack strikes again with more sensationalist, headline-grabbing game previews, this time highlighting a stash of new German titles.

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22 TECHIE TIPS

By Jason Finch. When it comes to the serious side of the C64, this is without doubt the definitive work.

29 MEAN MACHINE CODE

By Jason Finch. One can detect of touches of the early Magnus Pike in this entertaining but informative study.

REGULARS

5 SNIPPETS

By Dave Golder. More tabloid-style sensationalism.

6 LETTERS

By TMB. Though the style tend towards the pompous the sheer intelligence of the prose keeps you rivetted.

9 SUBSCRIPTIONS

By A Suit. Featuring the kind of headline which makes you suspect this is Golder working under a pseudonym.

11 POWER PACK

By Earnest Hemmingway. One can only suspect that the rumours of his death were greatly exaggerated.

14 PD FORMAT

By Andy Roberts. A surprising new work for the tipsmaster, but he proves himself more than up to the task of reviewing PD tape demo compilations.

25 BACK ISSUES

By AJP Taylor. The history of *CF* uncovered!

TURN TO PAGE 11 FOR THE FULL COVERTAPE BRIEFING… ➤

SNIPPETS

'What's going on?' sang the legendary Marvin Gaye in that little-known tribute to Commodore Format's news pages.

THE NEW ADVENTURES OF VISUALIZE

Life is one big adventure, apparently, but if you like your adventures in smaller chunks with handy icon controls and graphics, get ready for a feast of games from Visualize.

SE-KAA
OF ASSIAH

Visualize's top bod, Jon Wells – the C64 scene's very own Richard Branson (though he hasn't crash-landed in the Atlantic yet) – has bought the rights to 10 adventures, all written by Clive Wilson, and originally released on the Mastertronic label a few years back. But that's not all – Jon's updating every game to create, "90s versions," Every game will have new intro and outro graphics, added music and other little nips and tucks.

The first two releases are *Zzzz* and *See-kaa*, both of which should be ready in about a month. The provisional price is £2.99.

NOW THAT'S MAGIC

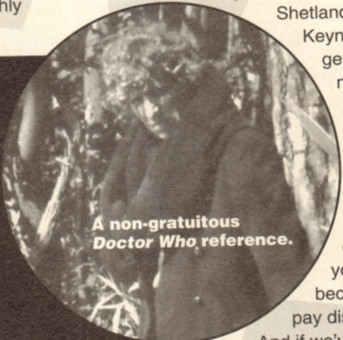
Commodore Magic is a new C64 user group which costs a paltry £1 to join. But a pounds still a pound. You don't want to send off your PO just to receive a four-page, potato-printed annual newsletter and access to a helpline that's permanently on an answerphone that plays a 'witty' message that's about as funny as a Carla Lane comedy after the second time you've heard it.

Luckily, Commodore Magic seems to offer such a decent range of services it's a snip at the price. Run by a martin Haywood from his base in Peterborough, CM provides:

- A pick'n'mix PD library which allows members to choose the software they put on their disks or tapes (yes, tapes).
- Technical help and advice.
- A word processing service.
- A contact line.
- A free bi-monthly newsletter.

Sounds good, doesn't it? But you don't have to take our word for it. Send off for the free, bright yellow intro pack, enclosing an SAE, to: Commodore Magic, 5 Crane Lane, Yaxley, Peterborough, Cambs PE7 3JH. And don't forget to tell 'em who sent you.

AND YET EVEN MORE GAMES...



A non-gratuitous *Doctor Who* reference.

Right, then, how does this little lot sound to you?

- *Solaris* – "a heart-attack inducing, single-screen blaster."
- *Cyber Attack* – "*Doctor Who* crossed with *Paradroid* shoot-'em-up." (*Sounds brilliant – Dave.*)
- *Molesquash* – "amazing cartoon violence." (*And a great name – Dave.*)

Well, they're all coming your way over the next few months from a new company called Robotronics. All the games are being programmed by Andrew Roger, a blokey with an impressive track record – he produced the music and SFX for over 20 games including *Arnie 2*, *Aliens 3* and *Carnage*. More news as it comes...

SUBS ARE BACK

Just to make sure you don't miss that screaming headline on page nine (as if you could) you can now once again subscribe to *Commodore Format*, and it'll cost you less than ever.

Yep, if you take out a 12 issue subscription you get a whole third off the total price which is the equivalent of four issues for free. That's a third of a year's worth of CFs – for free. Plus you get the mag delivered to your door – we know it's been getting a bit tricky for those of you in out of the way places (like the Shetland Islands, Kenya or Milton Keynes, places like that) to get hold of a copy in newsagents, so this is the perfect solution.

But there's a further advantage – and probably not an immediately obvious one. Y'see it's more economical for us to send you the mag direct, because we don't have to pay distributors or newsagents. And if we've got a bit more money to play around with, we could seriously improve the magazine. So the more of you who subscribe, the better we can make the magazine.

So turn to page nine now for all the details. You know it makes sense.

THE ALL-TIME TOP 50 POLL

We're always telling you what we think about games, but here's your chance to tell us what you think, and win a fab prize in the process...

Y'see, in issue 50 we're going to be printing a readers' all-time top 50 games chart. All you have to do is fill in this form here and send it to us at: Top 50, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon, BA1 2BW. Or, if you don't want to cut up the magazine, just jot down your top three and least favourite games on the back page of a Penguin edition of *The Tale Of Two Cities* and send that along (just the back page not the whole book).

And those prizes that I mentioned? Well, we'll be sticking all the Top 50 entries we receive by 1st September 1994 into a big bucket and drawing out a name. That person will win five games of their choice from a pretty vast selection we'll print next month, plus a year's subscription to *CF*, and maybe (if we can work it out with the Electric Boys) a disk drive. Can't be bad.

CF TOP 50

Favourite game ______________________

2nd favourite game ______________________

3rd favourite game ______________________

Least favourite game ______________________

Name ______________________

Address ______________________

____

THIS MONTH'S FES PLUG

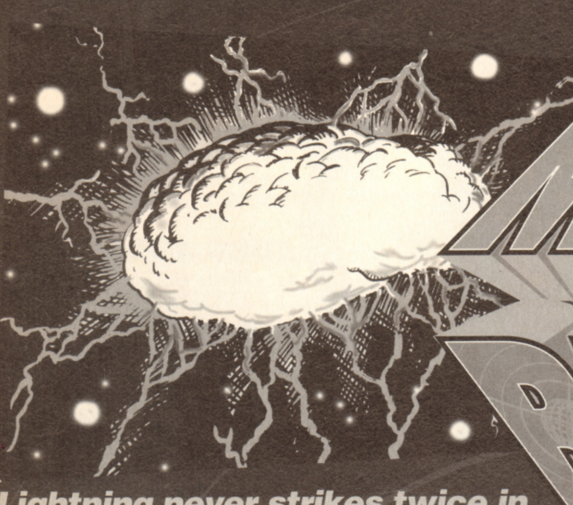
Another month, another FES plug. What d'you mean, what's the FES? It's Future Entertainment Show, the world' s greatest computer show open to the public, that's what it is and it'll be taking place at Earl's Court in London from the 26th to the 30th October. So be there.

The latest news is that Future Zone chain of computer shops will be sponsoring the National Games Championship, the finals of which will be held at the FES.

Preliminary rounds will be taking place in Future Zone stores around the country (☎ 0891 332288 for details of the store nearest to you which is taking part). While no C64 games will be iN the competition, if you think your gamesplaying skills can beat any pompous old console or 16-bit owner, take part and kick butt. There's an entry fee of 50p which goes to the charity, BLISS (Baby Life Support Systems).

Tickets for the FES will be £6 in advance and £7 on the door. The ticket hotline number is ☎ 0369 4235 (this is not a typo). See you there.

The Future Entertainment Show
Earls Court 2
26th – 30th October 1994
CD-Rom ○ Amiga ○ Mac ○ PC ○ CD-i ○ Consoles



THE MIGHTY BRAIN

Lightning never strikes twice in the same place, allegedly, but how do you explain such a fantastic event as the universe's greatest mind answering your letters in Commodore Format not just twice, but every month?

G'DAY FROM NZ 2

Dear TMB,

Break out the red carpet, everyone, I'm back from *CF*38! Anyway, back to Earth…

1 When I first gazed upon page 19 in *CF*41 I saw colour gracing the first page of your glorious section. Then over the page it was all black and white again. Aren't you decisive?

2 If you really are 33 per cent fatty tissue, surely it would therefore be logical for me to assume that you are (ahem) overweight.

3a If the developers of *Parasol Stars* (*the sequel to* Bubble Bobble *and* Rainbow Islands – *TMB*) failed to finish the game, why don't they just hand over all the rights and stuff for someone else to finish?

3b Did it ever reach a demo stage? If so, how about a demo on the Power Pack?

4 Any chance of the following games on the C64? *Turrican 3, Mega Twins, R-Type 2, Gods, Second Samurai, Uridium 3* or *Project X*?

5 Many moons ago a *CF* reader wrote in to suggest that the music from some games could be compiled and then released on the Power Pack? Will such a compilation ever be made?

6 John Major: why?

7 I think the Acorn RISC PC is exceptionally remarkable and fervently believe that Apple Macs, er, aren't.

8 Whatever happened to the Commodore 65?

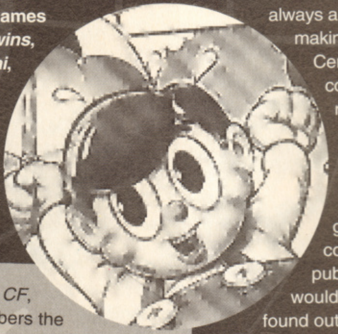
9 Tell the Rowlands Boyz that I fully support the possibility of a *Mayhem 2*, but as an improvement on the first, they should include more diagonal platforms to make the game scroll in all directions instead of just left and right.

Spot ya like a doughnut,

Brendan Reid, Ashburton, New Zealand.

PS May I take advantage of this opportunity to say hi to all my classmates in 5GT at Ashburton College?

PPS Jason Finch told me to call you a cell-swelling blob of snake's intestines.



Parasol Stars – it coulda been a contender. It coulda gone the distance...

1 I am at the whim of these humans and where they decide to place my section in the magazine. They haven't got a clue, really.

2 That's not fat, that's muscle.

3 Unfortunately, *Parasol Stars* on the C64 never got much further than the preliminary stages, which is a shame as it would have been a superb game, I am sure. As for anyone else continuing the work, that really depends on someone approaching Ocean and offering to buy the rights, rather than the other way around.

4 Well, there's always a chance. But then there's always a chance of anything (though 2 Unlimited making a decent record is very unlikely). Certainly there are no plans currently to convert those games to the C64, and we really need to look to developing good, new, original games instead, which is exactly what people like the Electric Boys and Visualize are doing.

5 How did the *Mayhem Mega Mixes* grab you? Aside from that, trying to compile music from games written and published by lots of different people would be a copyright nightmare (as we found out when we looked at the possibility).

6 It's a matter of cosmic balance. On Genrethrak Jurtuen at the moment they have the most forward-thinking, charismatic, popular, intelligent leader ever. Unfortunately, we have ended up with his quantum opposite so that the universe can retain its equilibrium.

7 Good for you. I like people who are prepared to stand up for what they believe in (like the Natural Law Party or Seventh Day Hoppists).

8 There's a chance it was just the figment of someone's imagination.

9 It certainly seems like a *Mayhem 2* would be very popular – take note, Apex. **TMB**

PS Well, you can tell Jason that stick and stones won't break my bones… because I haven't got any. Jason, though, has little defence against a powerful psychic attack, so I'll be bad vibing a few choice insults his way when he least expects it.

EDGING BACK IN FRONT

Dear TMB,

I was speaking with a pal of mine who works in a local computer shop, and he told me that the console fad is dead. Okay, here is the proof. My pal hasn't sold a single NES or Master System console or game in about nine months. He also hasn't sold as many SNES or Megadrive games as he used to.

BITS'N'PIECES

● This, as you probably know, is the first time that I have written to you. And I've got a problem. I can't find any good software stockists anywhere in Glasgow. Any ideas?

DF McClaughlin, Glasgow.

Have you considered moving somewhere else? Just a thought. **TMB**

● Will *Mayhem* be released on the Megadrive, because the boy who I baby-sit for was well impressed by the C64 version but he has a Megadrive?

Ben Raisbeck, The Dannii Minogue Obsession Centre, Somewhere.

Get him to buy a C64. Second-hand a C64 is probably cheaper than a new cart of *Mayhem* would ever be, anyway. A much better solution, all round. **TMB**

● Why can't I subscribe to *Commodore Format* any more?

Pete McClintock, Rotherham

You can! Subscriptions have returned, and they're now cheaper than ever! If you want to support the C64 you really owe it to yourself to subscribe to *CF*, because the more subscribers the magazine gets, the better service we can give you lot (to be perfectly frank, you see, it is more cost effective for these humans to send you your magazine direct, rather than letting those newsagents take a cut – so subscribing is cheaper for you and cheaper for us) See page nine now. **TMB**

● *Mayhem* is one of the best games on the C64, but it is over-hyped. Graphics of that quality can be seen in public domain demos all the time.

Luke Croll, Sheerness.

Ah, but those flashy effects you see in demos take up virtually all the computer's memory. A game needs to have memory left over so that you can actually play the thing. The beauty of *Mayhem* is that it had stunning graphics plus great playability. **TMB**

● *Flashback* is so good, I bought a Megadrive to play it on. Can you forgive me?

Ryan Barrett, Somewhere.

No. Especially as the Electric Boys are hoping to bring out a C64 equivalent. **TMB**

But when anybody sells him a second hand C64 or disk drive it doesn't stay in the shop for more than a week. Doesn't this prove something?
R Marshall, Great Yarmouth.

Yes. **TMB**

COMPLETELY BROKE

LETTER of the MONTH

Dear Mighty Brain,
I am the proud owner of a cupboard full of C64s, C128s, two broken SX64s, one C64GS, a couple of broken and working disk drives and an MPS1230 printer that fills the room with smoke whenever it is used. I also own a Megadrive (in a box in the loft) and a Commodore Amiga CDTV. I still use the C64 (which belongs to my mate Rick since none of mine work) because the games are cheaper and provide more of a challenge.

Please answer my questions or I will buy a SNES (usual empty threats).

1 Why do people say Dave's fat? He doesn't look it.
2 In the gamesplayers' Bible (*CF*42) was the second commandment a dig at Rik Henderson, editor of many C64/128 magazines?
3 Could you tell me the telephone number and address of a company called CPC Electronics in Preston? I believe they supply parts for all Commodore Computer equipment.
4 Does Jason Finch live in Leeds and attend Leeds university? My mate says he does.
5 Does anyone on the *CF* crew like the excellent Aerosmith? If not, why not?
6 Please print Mary Nightingale's name in the High Pressure part of the Mighty Barometer.
Steven Croucher, Chingford.

1 He just pulls his stomach (and his chins) in when he's being photographed – don't be fooled.
2 You might choose to believe that. We couldn't possibly comment.
3 The number may be 0772 654455. On the other hand that number could put you through to the sort of chat line you really don't want showing up on your itemised phone bill. Do you dare take the risk (or do you just ring up directory enquiries)?
4 He does, or, at least, did. He's just finished his final exams, y'see and is free to move on wherever he wants. So watch out, world – the only Commodore-using, Take That fan with a degree and a chocolate fixation is on the loose.
5 Dave like Aeros, if that counts.
6 Oh dear, is this some circumspect way of sending a love letter. Sad. **TMB**

WHOSE TROLLEY?

Dear TMB,
Please answer my question (or else) and if you don't you're out of your trolley.
1 How do you do?
2 How do you get past the security guard in *Seymour at the Movies*?
5 What comes next?
42 How do you do?
3 How do you read letters without eyes?
100 How do you do?
4 Have I said question 100 before?
5 Where do you come from?
Bye from me.
Timothy Watson, Somewhere.

I haven't used a trolley since that accident with the gritting machine. But anyway…
1 Whatever it is, I do it exceptionally well.
2 That's a Gamebusters questions. When you write to Andy Roberts, try to get the name of the game right.
5 Considering your tenuous grasp of simple numeracy, it could be anything.
42 Ah, 42, I should have guessed.
3 Not many letters have eyes so it's not a problem.
100 Whatever it is, I do it exceptionally well.
4 Have I answered question 100 before?
5 Somewhere else. **TMB**

NO SWEARING

Dear Mighty Brain,
Please answer my simple questions, and I will be your number one fan (even if I am already).
1 How smart are you?
2 In *CF*45 you put *Repton 3* in the High Pressure zone of the Mighty Barometer. I think it's crap.
3 On the *CF*45 Power Pack you gave away a program called *Speech!* I loaded it up and the first thing I did was check if it could swear. Guess what? It could. What do you have to say about that?
4 Which do you think is better out of a a 5.25-inch disk drive or a datassette?
5 Where do you live? I don't think it can be anywhere near me.
Simon Lamb, Gourock, Scotland.

1 When I'm wearing my Armani woolly bobble hat, I reckon I'm dead smart.
2 Well, it's all a matter of opinion – my opinion usually being right.
3 I bet you're the sort of person that looks up rude words in dictionaries as well, aren't you?
4 Are you kidding? A disk drive of course! Unless you like watching *Gone With The Wind* in its entirety while waiting for tapes to load.
5 I do not wish to disclose my current residence owing to tax reasons (you wouldn't believe how much they want off me). **TMB**

MEAN MARKS

Dear Mighty Brian (or should that be Brain?),
May I say what a great job you are doing. When virtually nothing BIG is happening C64-wise (such as the latest conversions from arcade games coming out) you continue to find (new) software to review, preview and feature in your great magazine.

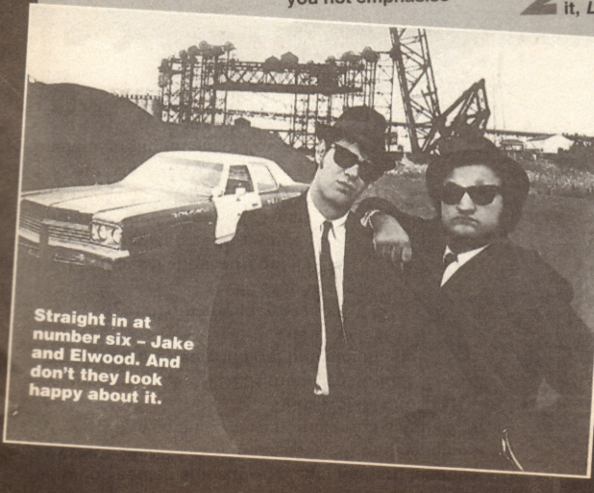
I must say that I think you underrated *Mayhem In Monsterland*, *Lemmings* and *Aliens 3*. Although *Mayhem In Monsterland* got 100 per cent, could you not emphasise what a great, playable, fast-moving, *Sonic*-beating, brilliantly addictive, super-smooth, colourful game it is? This is for those who are a bit slow and who haven't ordered a copy yet *(hang on, I'm just checking the post code here to make sure this isn't letter isn't from Essex where the Rowlands live… nope, it's genuine – TMB)*.

To change the mood a bit, here are a list of my favourite games, and how I would rate them.

1 **Mayhem In Monsterland 101%** Absolutely superb. An amazing piece of coding, not to be missed by anyone.
2 **Lemmings 98%** When it comes down to it, *Lemmings* is an all-time classic and the C64 has the best of the 8-bit versions. Buy it.
3 **Turrican 2 97%** *Turrican 2* is everything a sequel should be. Big, bad and addictive. It's a steal at £3.99.
4 **Paradroid 96%** An absolutely original shoot-'em-up game that kicks butt.
5 **Delta 96%** Very underrated at the time this is superb to say the least. A must for all shoot-'em-up fans. And non-shoot-'em-up fans.
6 **The Blues Brothers 95%** An a-maze-ing game! Both frustrating and very addictive. Getting lost is very easy, and completing it just makes you want to complete it again.
7 **Turrican 94%** The original – very playable and very addictive. A great game at a great price.
8 **Aliens 3 93%** Just like the film; lots of weapons and fire power…? Well, er, a darned fine game, anyway.
9 **California Games 92%** Undoubtedly the best sports sim ever, with loads of events. My favourites are the skate board ramp and surfing. It's a must.
10 **Manic Miner 90%** Badly presented, bland and basic graphics, but yet so addictive and playable. If you can find it, buy it.

To finish off, here is my least favourite game: *Final Fight*. Errr… I would rate it six per cent. I think it was overrated when it was reviewed (it got 13 per cent or something like that). Let's just say that if you gave me *Final Fight* and *Mayhem*, I'd play *Mayhem* and use *Final Fight* as a doorstop.
Leon Bebbington, Winsford.
PS I didn't feel like putting a PS but I didn't want to break with tradition.

Talking of *Final Fight*, that gives me an idea – let's have a few more Bottom Tens of your most hated games. Hopefully we'll piece together a list of the all-time most appalling games. **TMB**


Straight in at number six – Jake and Elwood. And don't they look happy about it.

STILL THE BEST

Dear Sir (*I like this man already – TMB*),
I would like to thank you and your staff for the continuing good work on the magazine and for the great games with which you supply us.

I have been a Commodore owner since 1985 when I bought a Plus 4 and 1551 disk drive (a great programmers' machine). I got a C64 in 1992 then a 1541 DD, a Seikosha printer (at the daft price of £59 new) and finally an Action Replay to complete my system.

I would like to upgrade to a better computer, but have been unable to find anything to match the good old C64. I tried an Amiga, but the games seemed strangely familiar and the disk access slower than a datassette. And as for buying a PC – why pay out good money for a machine that needs at least 4mb to run a decent program? No, I will stick with what I like.

I would like to request that you put more utilities on the covertape, like a spellchecker for *Mini Office 2* or for disks and printers. I am sure a lot of people own these bits of hardware now. At the moment, I am working my way through my back copies of *Your Commodore*, *Commodore User* and *Commodore International*, typing in programs, and I was wondering if you had the copyrights or could obtain them, as there were some good programs printed.

Long may *Commodore Format* continue and more power to the 8-bits.
Geoff Edwards, Liverpool.

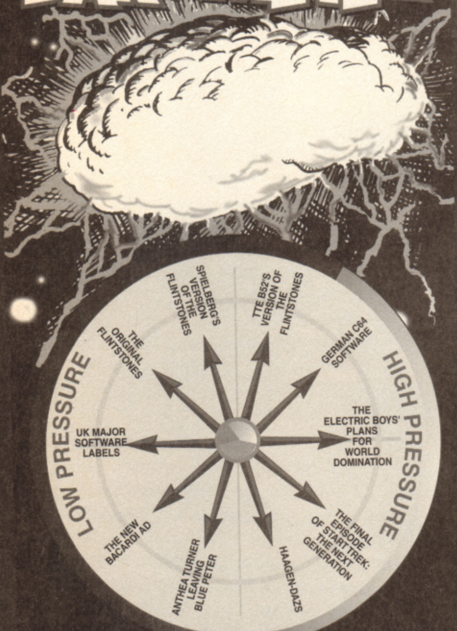
So you want to upgrade, do you? Then there's a feature on page 31 of this very issue that should interest you. And it should interest quite a few other people too. Even if they weren't thinking about upgrading. Which they might well do after reading the feature. **TMB**

ADIOS AMIGOS

And so, like all good things, most bad things, but seemingly not *Neighbours*, we come to the end of another pulsating letters page. Before I leave you I would just like to remind you that Hitchcock made more movies than Swindon Town scored goals in league matches last season.

If you want to share any similar pearls of wisdom with the rest of the world or if you want to have you say about the C64 scene, drop a line to: TMB, *Commodore Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.

THE MIGHTY BAROMETER



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BABBLING ON

Dear Mighty Cerebrum,
In CF45, how come *Babylon 5* was in the Low Pressure zone on the Mighty Barometer? How come it was there at all? I will forgive you if you have seen it on cable, video or overseas, but if you haven't, I would like to know how you managed to get your opinion in the magazine and onto the shop shelves within three days of Channel Four showing it.

Now for a *Yak Attack*. The oldest game in my collection is *ROX*, written entirely in BASIC, and totally listable, it was written by the hairy one on 16th September 1982. If anyone can help, I'm after a copy of *Yak's Progress*.

Praises: at last, a machine code tutorial section, and an assembler/disassembler/monitor (type HELP for command list). I can now do some serious programming without having to consult my many Instruction to Data Number tables. Thanks many much.

Before I disconnect from your corpus callosum, is there any chance of you putting *Elite* on the Power Pack?

By the way, I've finished *Exile*.
The Gamestress, Southsea.

Who needs cable, video or overseas travel to find out how dire a program can be when you have access to time travel and the psychic airways? I can confidently predict that more dreadful SF is on its way from the States: *Time Trax*, *RoboCop the Series*, *Highlander*, *VIPER* – trash, the lot of 'em. A TV version of the 1985 film *Weird Science*, though, is a surprisingly not at all bad. It's not much good, either, but at least it's funny. **TMB**

The cast for Windsor Theatre Royal's 1994 pantomime was announced last night...

COMMODORE FORMAT

CF47
August 1994

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If you want to phone us, make it a Wednesday or a Thursday, okay, otherwise you'll only get through to an annoying answerphone. By the way, we are not a techie helpline and we cannot (that's cannot, NOT will not) help you. If you want technical help write to Techie Tips (page 22) – that's what it's there for.

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Dave would like to thank: **Jonathan Nash for not complaining about the fact that we didn't credit his guest caption last issue. If you reckon you can spot which one it was, write in and tell us.**
Ollie would like to thank: **Malta**
Jason Finch would like to thank: **Absolutely no-one. It's been a horrible month couped up in exams halls, while it's been sunny outside.**

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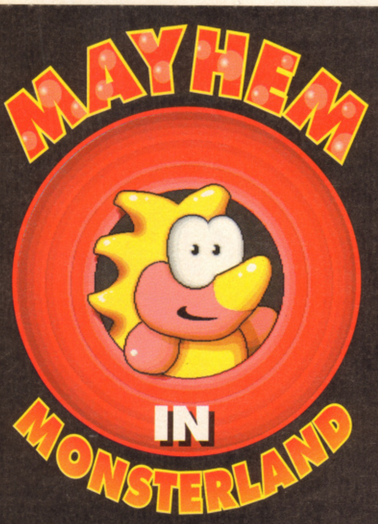

From the makers of Creatures and Creatures 2 comes probably the greatest platform game ever created for the C64; Mayhem in Monsterland is an intriguing blend of fast, frenetic platform action, with five wickedly cute levels to explore. Featuring the cutest dinosaur ever to emerge from the Jurassic period, you'll soon forget all about Italian plumbers and spikey blue hedgehogs.

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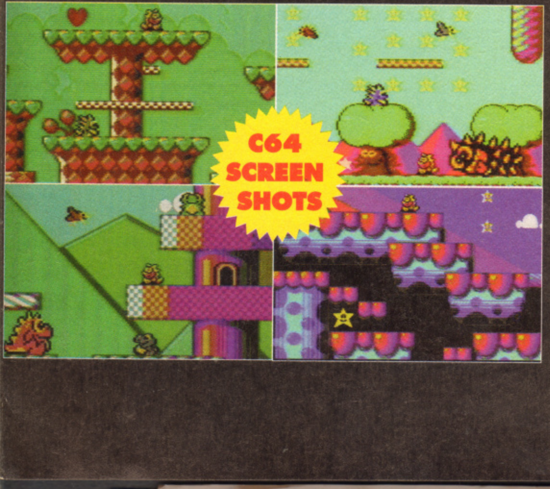

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THE LEGEND OF SINBAD

Joystick in port 2
Right, it's a bit of a cramped issue this month, so no messing about with any nonsense like plots or obscure intros (the "Blimey, I remember the first time I saw a Ray Harryhausen film…" routine was all worked out). It's straight into those instructions.

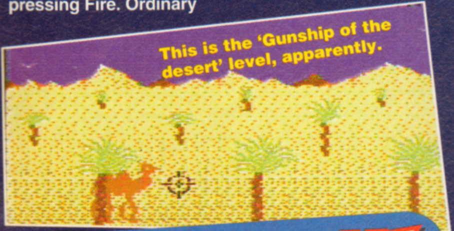
LEVEL ONE

The game is spit into four levels which together form a a sort of a story which we won't bother going into here. You play Sinbad who has been kidnapped and thrown in the dungeon of Sultan Selaphim's fortress. To escape the dungeon you must collect two keys to open the doors (cue 'lax guards' gag). To reveal a key you must collect eight pieces of treasure – the screen will flash at this point. You can only carry one key at a time and you can only shoot when you're moving horizontally. Avoid everything that moves or flashes. Pick up the lamp for a surprise (pause for breath).

SOFTWARE
Sinbad
Feeble fire display!

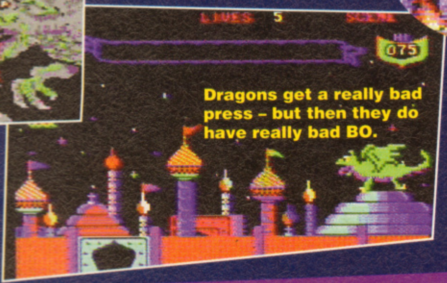
LEVEL TWO

Having escaped the dungeon, you now have to battle your way out of the fortress. The guards appear from behind the doors; the leader has a bright-green top while the others are in red. The leader kills you on contact, while the others need to hit you four times. Swing your joystick left or right while moving by pressing Fire. Ordinary guards take one hit to kill while the leader takes four (sounds like a fair exchange to me). Are you keeping up with this?

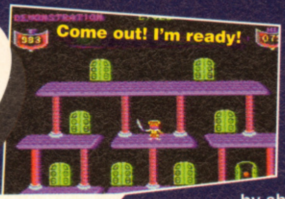

This is the 'Gunship of the desert' level, apparently.

LEVEL THREE

Next stage – crossing the desert. Protect your trusty camel by killing the desert creatures. Aim your shots by moving the black sights. Once a shot has been fired it can be guided by keeping Fire pressed down. Speed up the Camels by shooting them.



Dragons get a really bad press – but then they do have really bad BO.



Come out! I'm ready!

LEVEL FOUR

There are two parts to this final level. In the first you battle against giant Roc Birds and the Sultan's bodygaurds on their flying carpets. Rocs take three hits, while the guards take just one. Once you've defeated them the Sultan appears and transforms himself into a dragon which must be shot 15 times. Phew. And that's it. Good luck – I'm off for a rest.

THE MEAN MACHINE

Wanna know what kind of effects you're C64 is really capable of producing when pushed to its limits? Then this series of demos, exclusively compiled by The Electric Boys for *Commodore Format*, should give you a pretty good idea. From scrolly demos, through gloriously detailed piccies to stunning animated sequences, these are the kind of demos you can show to any Amiga owners and say, "Hah – and what did you pay for your machine?" They prove that the C64 is a machine so mean, it would sell it'd grandmother to Japanese tourists.

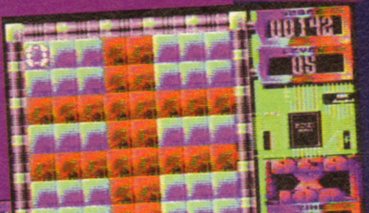
Well, it's one way to beat the rail strike.

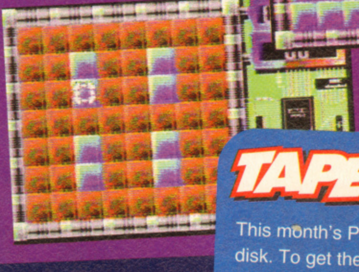
REAXION

Joystick in Port 2
Let's get the formalities out of the way. This ingenious little puzzler was written by Jason Kelk and Sean Connolly (this is sounds like a 'hi mum' scenario to me).

The first few levels are deceptively simple, lulling you into a sense of false security, but it rapidly becomes more and more devious. All you have to do is change all the squares on the grid to red. There's a cursor which you can move over the grid. When you press fire, the square beneath the cursor and the others surrounding it will all swap colour – reds become blue, blues become red.

And that's it. It doesn't sound too difficult does it? Go on, give it a try… but don't send the receipts for the hair replacement therapy.




Eliminate all those blue squares.

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If you're having a hard time loading this month's Power Pack then plonk the duff tape in a jiffy bag, slip in a tape-sized SAE, seal it up and send it to: *CF*47 Tape Replacement Service, Ablex Audio Video Ltd., Harcourt Halesfield 14, Telford, Shropshire.

ER, SORRY...

Despite what it says on the sleeve, there aren't any Techie Tips on the tape this month. You can blame the British postal system for that. They ended up somewhere in Manchester – we're not sure why. We'll make up for it with a double dose of Tips next month.

TAPE TO DISK

This month's Power Pack is also available on disk. To get the disk version simply cut out the token on the tape inlay card, write your name and full address on a piece of paper, pop 'em in an envelope with a cheque or postal order, made out to Ablex Audio Video, for £1.50 (to cover duplication costs) and send it to: **CF47 Tape To Disk, Ablex Audio Video Ltd, Harcourt Halesfield 14, Telford, Shropshire TF7 4QD.**

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MAKING 10TH DAN

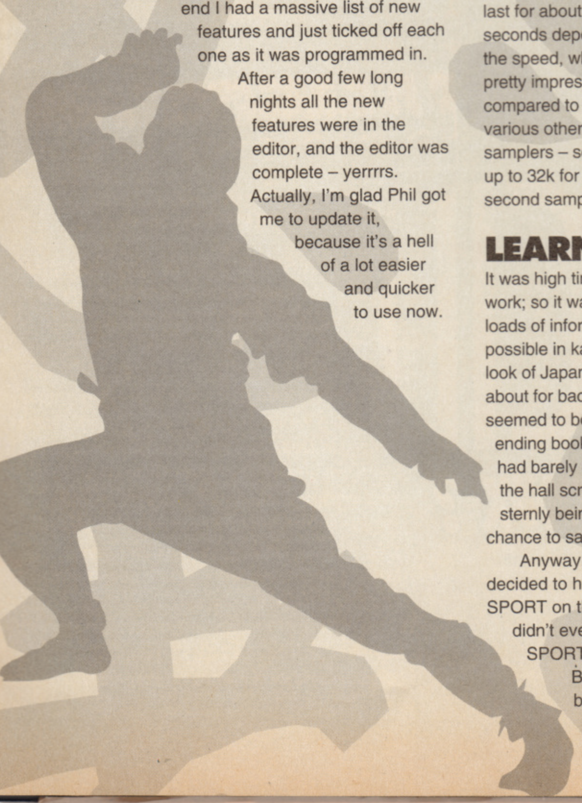
Jon Wells has a dream, a dream he's been working on for four months now. He wants to write the best beat-'em-up ever on the C64. This is (the fourth part) of his story...

DIARY OF A GAME: MONTH FOUR

Things are really beginning to get off the ground this month. What sort of things then? Well, let's see… For a start, after being constantly hassled by fellow conspirator Phil to include that character graphics editor I was working on last month into our Block and Map editor, I set to work doing just that.

Originally, Phil would have had to do all the graphics on a separate editor, save and download them into the Map editor and then build the block graphics. The only problem came when he needed to change or improve the graphics; y'see he'd have to save everything out, load in the other editor and...aaarrrgh! Get the picture? Too much hassle and time wasting.

If I needed to update the editor, I wanted to do it once and once only! With this in mind, we detailed all possible features for the Char edit part and extras. In the end I had a massive list of new features and just ticked off each one as it was programmed in. After a good few long nights all the new features were in the editor, and the editor was complete – yerrrrs. Actually, I'm glad Phil got me to update it, because it's a hell of a lot easier and quicker to use now.



SOUND EDITING

Remember last month, when I was blabbering on about the samples? Well, I've been working on that synthesis sample editor I mentioned. Awww! It's not fair, I'm doing all the editors. In fact, I quite enjoy it. Er… anyway, this is a fairly simple and straightforward editor. I can playback and listen to each sample, which can then be edited, modified, deleted or whatever. The filter frequency can be also changed along with the speed.

The synthesis editor consists of a list of sample banks to use. Each bank is 4k ($1000 hex bytes or 4096 decimal bytes) in length; this means that if a sample was to take up $1000 bytes, it would last for about eight seconds depending on the speed, which is pretty impressive compared to the various other samplers – some use up to 32k for a three second sample.

THE STORY SO FAR...

Jon Wells of Visualize Developments, decided that the C64 was in dire need of top-notch beat-'em-up. So he decided to do the main coding, and roped in... er... convinced Paul Hannay to do the music and Phil Nicholson to do the graphics. So far they've decided on the format – a karate kick-'em-up in which you have to progress through the various Dans – and have set their sights high with ambitious promises about single loads, stunning graphics and amazingly intelligent opponents. They've got the various sound, graphics and program editors all sussed. So now the actually nitty gritty commences...

LEARNING THE MOVES

It was high time for me to do some more proper research work; so it was off down to the local library. I wanted to find loads of information on all of the various different moves possible in karate, and also glean some information on the look of Japanese landscapes, to give me a few more ideas about for backgrounds. Well, after looking for what seemed to be hours through rows and rows of never-ending books, I decided to ask a librarian for assistance. I had barely opened my mouth when she dashed off down the hall screaming and pointing, "Here they are!" (while sternly being told to keep quiet), before I even had a chance to say what I was looking for… How did she know?

Anyway, these books looked quite useful, so I decided to hire 'em. Looking up I noticed the sign saying SPORT on the bookshelf. God, I must be a bit dim – it didn't even occur to me to look under the category of SPORT! Oh well, never mind...

Before leaving I also managed to find some books on Japan, which had some good photos of well-known landmarks. Hmmmm... I reckon those'll come in handy!

It was quite interesting going through these karate books. They've got some excellent illustrations of the moves, along with all the different frame positions that build up the move. They even cover the timing of the moves (this'll help us give the on-screen moves a more true-to-life look). This information is essential to us, especially Phil as he has to handle all those graphics.

THE RIGHT COMBINATION

One thing we are really keen to include in 10th Dan are combination moves. In all the beat-'em-ups we've seen so far (even coin-ops), there's never been a game that features full combination moves, allowing for every variation of combinations for every move. But guess what? We are going to try to make *10th Dan* a first in this respect.

For those of you uncertain about combination moves, normally in beat-'em-ups you must wait until the first move is finished before you can operate another. With combinations, though, you can effectively start a new move as soon as the old move connects. This means you don't have to wait until your character is back in a standing position, and also means that your moves will be much faster.

10th Dan will feature different combination styles for every move, like, say, a High Punch followed by a Middle Kick. Or a Middle Kick followed by a Backward Roundhouse. A combination of three moves could be done with: High Punch followed by Middle Kick followed by Backward Roundhouse. Each move will have a selection of follow-on moves which you can choose with the correct operation of the joystick. In the standing position you'll have all the moves to choose from, but we reckon that once you start punching and kicking there are going to be hundreds of combinations from which to choose.

I've told Phil about the books, so he'll be looking for some copies in his local library. He's started on the landscape graphics, which are looking good and they're much better than the cack test graphics I did last month. All the landscapes will be tweaked until they're of the highest quality.

We can start on the actual karate animations soon, as well, so I'm really looking forward to start that aspect of the program so that we can really see the game in action!

NO MULTILOAD

In the meantime, d'you remember in part one where I was bragging about, uhmmm… the possibility of the main game being all in one load? Well, it's most certainly looking possible now. I've planned ahead by mapping out all the system, giving each part of the structure a limited amount of memory. Though it's the first time I've ever tried to program like this, so far it's working like a dream.

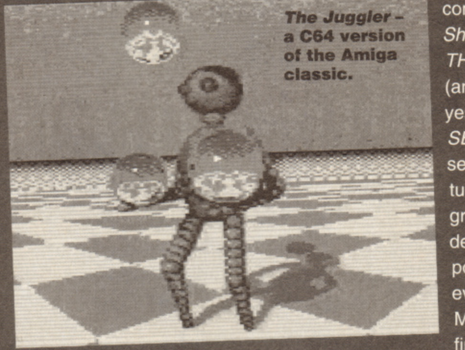
As an example, imagine that I've allocated 1k for the scrolling routine; if after programming the routine it's bigger than 1k, I can re-write and compact the code until it does fit. The only problem with working like this, is that I may have to re-write a routine two or three times, but hey… it'll be worth it in the end!

'TIL NEXT MONTH

That's it for this month I'm afraid, Phil should be making an appearance in part five and if all goes well, we'll start seeing some action shots! See you there.

PD FORMAT

Andy Roberts sidetracks from his role of 'tips God to the entire universe'* just long enough to cast his eagle-eyes over the PD scene. This month, he investigates the ever-expanding range of PD tapes available. Er, Andy, you're on...


The Juggler – a C64 version of the Amiga classic.

Fact of life: there are more C64 owners with tape recorders than with disk drives. Fact of life: there are more PD disks available than tapes. The solution? Quite simply, PD tape compilations. It seems like the obvious answer for poor, neglected cassette users, so why didn't anybody think of it sooner?

Binary Zone was the first library to spot the niche, and it currently has a range of 16 tapes covering various types of software. Binary was closely followed by Fox PD, which now specialises in tapes, and has a range of around six different tape compilations at present. Last but not least is Megatronix PD, formerly known as Pensnett PD, which currently has a selection of eight PD tapes. We asked a couple of these libraries to send us samples of their tape-based PD wares, and here's what we reckon to them.

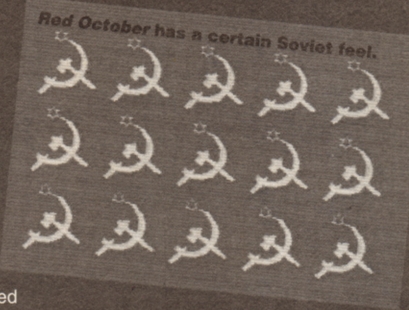
Oh, and just in case you were wondering, we'll endeavour to review PD tapes alongside the disk-based software each and every month.

CLASSIC DEMO MIX 1

(BINARY ZONE PD)

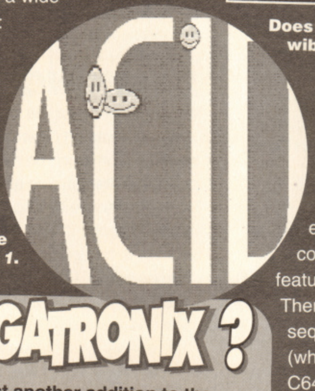
Each Binary Zone tape is a C90 cassette, containing an average of 30 to 40 programs (which roughly works out at 15 pence per demo which can't be bad). This first *Classic Demo Mix* was originally compiled just to satisfy the demands of software-starved tape users, but is actually an impressive and varied combination of demos which provides an excellent starter pack for the first-time PD buyer.

If you're a keen fan of vector graphics, there are a number of impressive demo segments, such as the huge line-vectors from the highly acclaimed *BRUTAL 3* demo, or the colourful cones and spheres from Triad's *LICKPIPE* production. Digitised sound makes a couple of appearances: Dead or Alive feature in the *YOUTHQUAKE* segment by Contex (an excellent mix), and the slightly less impressive, U2 Zooropa tour-inspired *RED OCTOBER* demo.


Red October has a certain Soviet feel.

Normal music freaks can satisfy themselves with *BEASTIALITY* (which contains music from *Shadow of the Beast*), *THRUST CONCERT* (animated escapade from yesteryear), *IN NO SENSE* (which features several well-known demo tunes from various groups), two music demos from the ever-popular Scoop (who eventually became the Maniacs of Noise), and finally a rather nifty music select system called *MOONSCAPE*.

Visual effects are an important feature in any self-respecting demo, and there is a wide variety of eye-popping effects: Tony Crowther's *JUGGLER* demo is a classic remake of the Amiga version, the *FLI FLOOD DEMO* features a stunning psychedelic logo, Alive's *3D FACE* has to be seen to be believed and there are also a couple of *MULTIPLEXOR* demos which display literally hundreds of sprites. Incredible stuff.



***Digital Acid* from the *Classic Demo Mix 1*.**

Add to this a sprinkling of classic demos such as *BATMANIA*, *MC GOTTIFANT* and *DIGITAL ACID*, and you have a very fine demo compilation indeed. If you've never encountered PD before, you could do a lot worse.

90%

PD DEMO TAPE 1

(MEGATRONIX PD)

Each Megatronix cassette is also a C90, again stuffed full of demos (with around 20 to 30 separate programs on each tape). The Megatronix tape range was also introduced to satisfy the ever-expanding demand for PD software on cassette, this particular tape being the fifth in the range.

This tape features four classic mega-demos, which were previously available on disk: *DUTCH BREEZE*, *BRUTALITY*, *LEGOLAND* and *WONDERLAND 8*. If you've never heard of any of those demos, here's what you get...

BRUTALITY
IGHT, VIDLVAGEN 29, 746 51 BALSTA, SWEDEN...
Does anybody ever actually read these wibbly scrolling message things?

DUTCH BREEZE is a legend in the demo community, created by the equally well-renowned Blackmail group. After an evocative intro (complete with flying dragon) comes a variation on the 'Mix-E-Load' system featured in *Delta* and *Hawkeye* (from Thalamus). There are a number of technically impressive sequences, featuring stunning FLI pictures (which are much more colourful than standard C64 piccies), as well as a number of wipes, fades and dissolve effects, and even a grazing cow. How's that for surreal?

BRUTALITY is the second demo, manufactured by the LIGHT group. After the bog-standard intro comes an impressive

WHO ARE MEGATRONIX ?

If you think Megatronix PD is just another addition to the ever-growing clan of PD libraries, you're wrong. Remember PENSNETT PD? The guy in charge, Dean Kelly, thought it was time for a change of name, and amazingly enough, the new name is Megatronix (which, let's face it, is about a million times better). The address is in the Directory opposite.

---

* Boasts of this magnitude should only be attempted by professional liars.

Dutch Breeze is available on the PD Demo Tape 1.

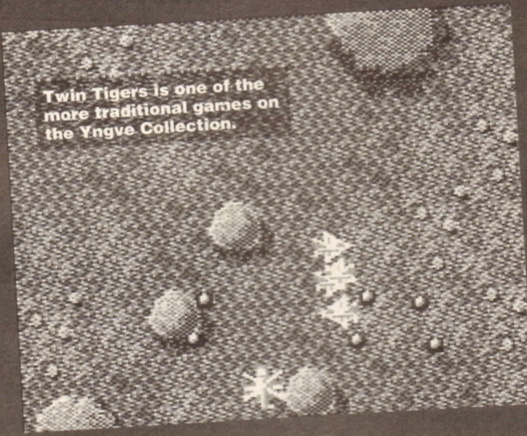
scroller and fractal generator (which takes more than a little time to calculate!), a wonderful real-time ray-tracing system and even a loop-the-loop scrolling message. Finally, after a breathtaking wibbling logo (and some truly superb artwork inspired by Boris Valejo), comes probably the best segment of the demo... a stunning ray-traced animation.

LEGOLAND is perhaps the least impressive demo on the tape primarily because most of the sections last only a few minutes. Still, there are plenty of neat effects to take your mind of the loading times: cavemen on hippos, animated ray-tracing, stretched and manipulated logos, a gallery of FLI artwork, and some very impressive plasma cycling (which has nothing to do with blobs on wheels).

The final demo is *WONDERLAND 8*, part of a highly acclaimed (and apparently never-ending) series of demos. A bizarre bridge sequence sets the tone for the demo, and after all manner of wibbly scrollers, bitmap scrollers and even a James Bond-influenced sequence, comes yet another scroller. Er, great, just what we weren't expecting…

While the original demos were excellent, conversion to tape has lessened the quality and enjoyability of each demo. Indeed, some of the sections from the original are not even included on this tape. However, if you're an avid mega-demo fan and only have a tape deck, you might as well give this a try. However, be warned that some of the demos include bad language and explicit pictures unsuitable for younger C64 users (it's all a bit sad, really, isn't it?).

80%



Twin Tigers is one of the more traditional games on the Yngve Collection.

ALF YNGVE'S GAMES COLLECTION

(BINARY ZONE / FOX PD)

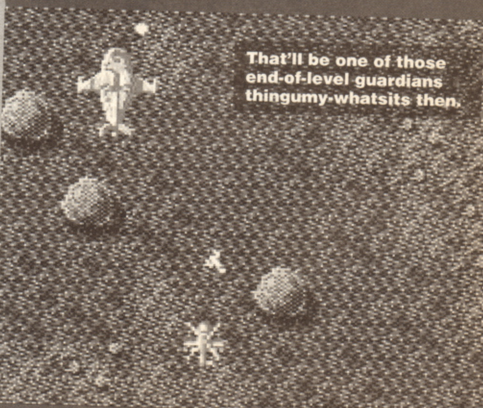
If you've never heard of Alf Yngve, shame on you. He is, in fact, the guru of *SEUCK* games (that's the *Shoot-'Em-Up Construction Kit*, kids), and he's produced literally dozens of top-notch games over the last few years. If you rushed out and bought *Archetype* and *Cops 3* from Psytronik, you'll begin to appreciate the quality of the collection. And it really shows how versatile a package *SEUCK* can be when handled by an expert.

This compilation includes 20 different games, ranging from straightforward shoot-'em-ups such as *Twin Tigers* to the totally surreal *Nirvana* (which features all manner of ethereal images). The graphics and gameplay are generally enough to put any self-respecting games creator to shame.

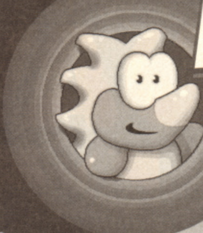
However, Alf surpasses his nearest rivals with his sheer imagination. Although the collection features the ubiquitous vertically scrolling games, it also includes several genres thought impossible to create with *SEUCK*. *Reuter's World*, for example, is a superbly inspired cartoon-esque arcade romp, while *3D SPACEWAR* is exactly what its name suggests – a 3D shoot-'em-up (*er, it actually suggests to me a cheap, 70s, made-for-TV sci fi movie starring Lee majors and Doug McLure, but there you go – Dave*). Add to this the two prequels to *COPS 3*, a meaty *Operation Wolf* clone, all manner of *Commando*-inspired adventures, and two utterly superb chapters from the *Ninja Blueberry* saga, and you have an astounding games collection.

The version of this compilation that's available from Binary Zone features some radically enhanced games (along with a title screen and in-game music), plus full instructions before each game starts. It also features an exclusive interview with the creator himself, Alf Yngve, but don't let that put you off. A similar tape is available from Fox PD, albeit with different music and instructions. Whichever one you get, you won't regret it.

95%



That'll be one of those end-of-level guardians thingumy-whatsits then.



MAYHEM GOES PUBLIC

There can't be a C64 owner in the entire cosmos who hasn't heard of *Mayhem in Monsterland*; that darned dinosaur has featured in more magazine pages than Dave has had hot dinners (and he has at least two of those every day). If you haven't bought the game, then this latest demo disk from Binary Zone might just tempt you, as it includes three simply huge playable demo levels: Spottyland, Jellyland and Pipeland.

As if that weren't enough, it also includes three exclusive music demos, featuring a wide variety of tunes from various PD demo musicians. If you haven't played Mayhem and would like a little taster, this disk was made for you, and the three music demos are a nice addition to an already bulging disk.

PD FORMAT DIRECTORY

Here at *CF* we like to pride ourselves on accuracy, integrity, purity and righteousness. That's why we never usually recommend any one particular PD library – we like to leave the choice up to you, and most good libraries carry the latest software anyway. If you've never ordered PD software before, write to a few libraries (enclosing an SAE) and ask for an up-to-date catalogue. Some libraries only stock disk-based software, so it might also be a good idea to specify whether or not you own a disk drive.

If you run a PD library and can't find your company listed here, write to us at: PD Format, *Commodore Format*, 30 Monmouth Street, Bath, Avon, BA1 2BW. And if you're a programmer, that's also the address to send your latest software to; if it hits the mark, we'll feature it. And finally, if you don't happen to be a programmer or PD librarian but would still like to drop us a line, please do. We like to feel wanted.

- **BINARY ZONE PD/THE GUILD, 34 Portland Road, Droitwich, Worcestershire WR9 7QW.**
- **ELECTRIC BOYS PD, 917B Brighton Road, Purley, Surrey, CR8 2BP.**
- **FOX PD, 6 Sturton Avenue, Goose Green, Wigan WN3 6SZ.**
- **KINGSWAY PD, 72 Glencoe Road, Sheffield, North Yorkshire S2 2SR.**
- **MK PD, 1 Westmore Close, Burrows Park, Northam, North Devon EX39 1SR.**
- **MEGATRONIX PD, 21 Tiled House Lane, Pensnett, Brierly Hill, West Midlands DY5 4LG.**
- **SHAREWARE PLUS, Fulfilment Centre, 66 High Street, Pershore, Worcs WR10 1DU**
- **UTOPIA PD, 10 Cwmaman Road, Godreaman, Abedare, Mid Glamorgan CF44 6DG.**

UNCLE DAVE'S BUY-A-RAMA

FOR SALE

The bargain of a lifetime (or a couple of decent games at least) could be just a phonecall away...

FOR SALE

C64 games for sale. Most 50p. I also want RoboCod. If you send it to me, you'll get The Simpsons and New Zealand Story in return. Excellent bargain. Alan Boyd, 3 Nunnery Stables, St Albans, Herts. Phone 0727 830631.

C64 cassette games for sale for 50p each. Selection includes Street Fighter. Call natalie on 0742 690687 for details. Call now!

Master System with four games. Great value – £40ono. Phone Lichfield 0543 432687 evenings only please.

Master System 2 with two controllers, six games and carry case. Games include Alien 3 and Slap Shot, £60. Contact David on 0933 675947 from 7pm onwards.

C64 games for sale or exchange. Plenty to choose from. Please phone Geoff on the following number for details: 0952 414395.

Pang, C64 cart, good condition, boxed, £7.50. If you're in the Milton Keynes area phone me – James, 0908 618593.

Bargain software – C64 tapes, disks and carts from 50p. List from Eddie (SAE would be appreciated, thanks), Soft Options, 139 Commercial Street, Kirkaldy, KY1 2NS.

C64 with datassette , power pack, two joysticks and games. User manual, All for £50ono. Write to T Nawaz, 46 Norton Crescent, Bordesley Green, Birmingham B9 5TD.

C64 for sale with loads of games including WWF and Elite. Joysticks plus new datacorder. £90. May split. Tel Ben on 0509 239485. Hurry.

C64, disk drive, recorder, over 500 games on tape and disk and cart, magazines, covertapes, joystick (will split). £120. Mark Raynes, 267 Pelham Road, Immingham, South Humberside DN40 1JU.

For sale: Strider 2. Is not, I repeat, not a budget. Up for sale for £5 or more. Write to 49 Budbury Tyning, Bradford-On-Avon, Wiltshire, BA15 1QE Also, *CF*27 for £1.50.

C64, tape, disk drive, printer, Action Replay Mark 2, 300 games, three boxes of disks, mags, books, utilities, art package, more. Only £190ono. 0234 766671.

Free games (not really). C64 tapes, 13 games including Treasure Island Dizzy, Hammerfist, American Dreams, Run The Gauntlet. Bargain at £12. Tel Alex on 081 347 9414.

C64, datasette, two joysticks, two lights, guns, Action Replay Mark 2, 250 games, Music Maker with keyboard attachment. CF and Commodore Force mags, £200. Phone 0703 892561.

Brand new Commodore 64, fast data disk drive, still in box and plastic as it was an unwanted present. Accept £15. Tel 0753 594382 and leave Ricky your telephone number.

OCP Advanced Art Studio, cassette version, mouse, manual, £10. Expert Trilogic cartridge, boxed, manual, disc, only £10. Tel 091 213 1184.

USER GROUP

SEUCKers – the original and the best SEUCK user group. Write to: SEUCKers, c/o 12 Arthur Avenue, Caister-on-Sea, Great Yarmouth, Norfolk, NR30 9PQ for a full list.

C64 games, McDonaldland, Teenage Turtles The Coin-Op, Summer Camp, Rodland, Terminator 2, Last Ninja 3, plus many more. £2 each. Tel 0740 880161.

Last NInja 3, Exile, Smash TV, all scored 97 per cent in CF. £5 each or £12 for all three. Telephone Sean on 0977 617033.

WANTED

C64 Mini Office 2, tape or disk, or any DTP package or word processor compatible with an Epson printer. Lucy Barnard, 1 Sandpit Road, Thorney, Peterborough, PE6 0SU.

Super Script, disk for C128. Original formatted in error. Tel 0322 668452.

Machine Code programmer wants to swap listings info, source code and utilities. Disk users preferred. No disk thieves. Write now. 100 per cent guarantee reply within 24 hours. Andy Atchison, 186 Hereson Road, Ramsgate, Kent CT11 7ER.

Action Replay Mark Six, in good condition. Will pay up to £30. Send to: Thomas Morgan, 73 Elmfield Road, Peterborough, PE1 4HA. 0733 66377.

Any C64 games on disk. Also wanted a 3.5-inch disk drive for C64. Printer for C64 must be fairly cheap and in good condition. Phone 0205 870556 and ask for Tommo.

Mini Office 2 and Saracen Paint (tape or disk) with instructions. Steve 0482 833203.

C64 disks, Salamander, McDonaldland, RoboCod, in particular. Call 0533 881179 after 6pm and tell me what you've got. Originals only.

Pirates on disk for the C64. Telephone Tony on 0262 603123.

GEOS software especially GEOPublish, GEOCalc. Phone Tim on 081 845 9676. Will buy or exchange for software/hardware.

Sound Sampler, plus software if possible for the C64. Will pay reasonable price. Write to Kevin Robinson, 12 Austwick Grove, Trent Vale, S-O-T, Staffs, ST4 6ND.

Tubular Bells the CBM64 album tape. 160 Capel Road, Forest Gate, London E7.

F16 Combat Pilot or Project Stealth Fighter. Disk only. Call 0270 69328 after 4pm. Ask for Matthew.

11 great C64 games such as Wonder Boy, Operation Thunderbolt, Devastating Blow, etc. All for a bargain price of £20. Write to Ian Smillie, 8 Syon Lane, Isleworth, Middlesex, TW7 5BT.

GEOS 2.0 and any good DTP disk utilities to be printed out on a Commodore serial printer. I will either swap or buy. Phone anytime – Lincoln 0522 540580.

Vic-Rel interface for the C64. Tel 081 879 7151.

Easy Script (ESC6440) software program. Telephone 0467 643825.

The GAC manual. Will pay. Contact Jake Manley, Les Salesses, 87500 Le Chalard, France.

I will sawp 50 cassettes (originals) for any SNES game. Loadsa classics. Cheap[CF back issues too. Phone Billy on 0642 613681.

Wanted: C64 disk drive. Preferably local area to Camberley. Please call Derek on 0831 49397.

Printer wanted for C64. Please phone 051 474 6580 and ask for Michelle. Please help! (Colour/otherwise.)

Swap Gamebusters, Hyperbowl, Pop Quiz, Knightmare and Skatin' USA for Addams Family, Creatures, Altered Beast. Stephen 0703 860000.

Wanted: 3D Construction Kit (disk). Will swap for Street Fighter 2 (disk). Also wanted SEUCK (tape or disk). Will swap for RoboCop 2. Both games must be boxed, have instructions and be in good working condition. Kevin Wilson, 9 Failford Place, Kilmarnock, Scotland KA3 1UJ.

Street Fighter 2 for the C64. Will pay up to £4. No copies. Phone James on 0353 722426.

Commodore Format tapes 1 and 2. Will pay full price for them. Plus, I'm looking for a pen pal, 40 0r over. Must have a C64. P Culley, 66 Healy Wood Road, Burnley, Lancs BB11 2LP.

Commodore MPS1230 printer in good working condition. Will pay up to £50. Phone Saturday 8pm-11pm, or Sunday all day. 081 423 5620.

Swap Sega Master system plus games for C64 disk drive and games or C128D. No reasonable offer refused. Phone 0307 850257 after 5pm. Ask for Kenny, by the way.

Wanted: cheap C64 modem/Mark 4 Action Replay cart plus Steel Thunder,Iron Lord, Red Storm Rising, Speedball 2, Diplomacy on cassette. Good condition plus all the instructions. Write to 57 Holdenhurts Avenue, Bournemouth, Dorset BH7 6RB.

PEN PAL

Penpal wanted. Must be a serious programmer. Must like booze and rock. No Take That. To swap hints, tips, progs, wife. Preferably adults only (18+) Beat the rush. Write now to:Andy Atchison (Atch), 186 Hereson Road, Ramsgate, Kent CT11 7ER.

I am selling a Pirates game for £3 or will swap for offer. I am also selling a Barcode for £30ono. Philip Hendry, 34 Davie, Parkplace, Blairgowrie, Pertshire, PH10 7BL.

Please help! Anybody got a game called Doomdark's Revenge for the C64? I will pay £10 for it. Please phone 0698 747379.

Cheap C64 modem/Iron Lord, PHM Pegasus, Beach Head, Speedball 2, Steel Thunder on cassette, Pay good price. Also lots of C64 games for sale from 30p. Send SAE for list to 57 Holdenhurts Avenue, Bournemouth, Dorset BH7 6RB.

Aarrgghh! I can't cope. If only someone would sell me their GAC booklet I'd look after it! I'd pay any reasonable price. Enquiries to: Matthew Dainty, 2 Lady Leasow, Radbrook Green, Shrewsbury, SY3 6AB.

Wanted: Tobruck, Rail Road Boss, Battle For Normandy, Iwo Jima and Falklands '82. Tape or disk. Will pay reasonable price. Please write to: Andy Hudson, 5 Trocadero Court, Normanton Road, Derby DE1 2GR.

Wanted: (cass) Nobby The Aardvark, Mancopter and Sleepwalker (Ocean). Contact Loz on 0472 602614. Reasonable prices paid.

Disk drive for the C64. Also Tolkien Trilogy on cassette. Cheap if poss. Single Parent. Tel Swansea 0792 644109.

C64 disk operating system or disk utility program. Will send blank disk. Please help. I can't copy my disks or anything! 0793 782045.

Sound Sampler (tape only). Preferable Datel Digital Sound Sampler but not essential. Phone Adam on 0703 892561.

BUY-A-RAMA ORDER FORM

NAME ____________________

ADDRESS ____________________

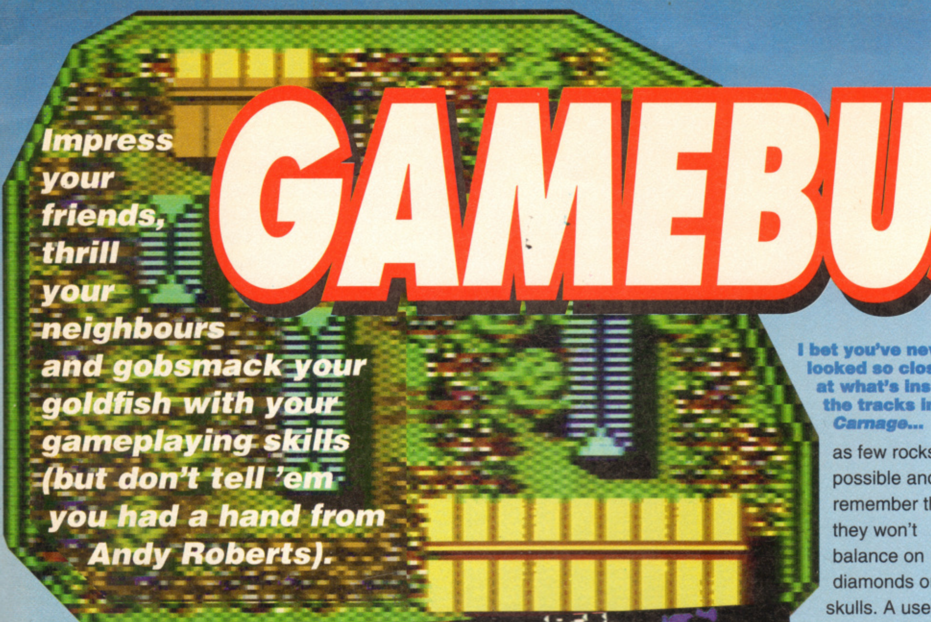
____

Classification: Tick box; ☐ For sale ☐ Wanted ☐ Services ☐ User groups ☐ Pen pals

BUYING? SELLING? DOING SOMETHING ELSE THAT THE C64 WORLD SHOULD KNOW ABOUT? THEN CF IS THE PLACE TO ADVERTISE...

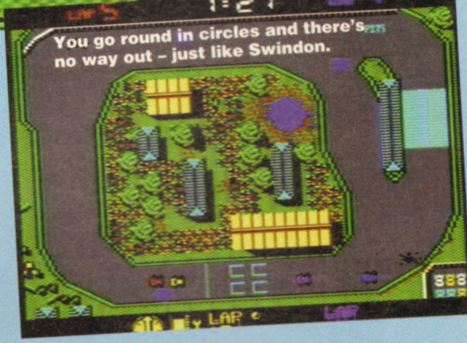
And it's as easy as filling in this 'ere form and sending it to us here at Uncle Dave's Buy-A-Llama, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW. And it's free! But that doesn't mean you can take liberties. It's one word to a box in the grid. Cram in more and your ad will be heading binwards.

GAMEBUSTERS



Impress your friends, thrill your neighbours and gobsmack your goldfish with your gameplaying skills (but don't tell 'em you had a hand from Andy Roberts).

I bet you've never looked so closely at what's inside the tracks in *Carnage*...



You go round in circles and there's no way out – just like Swindon.

CARNAGE
(POWER PACK 44)

In addition to last month's batch of tips, Richard Beckett has another nifty trick up his sleeve. Simply start a two-player game, using a joystick in port two. Leave the other car alone, and at the start of the race the car behind will hit it and get stuck, leaving you with only one opponent to contend with. Nifty.

REPTON 3 (POWER PACK 45)

Richard Beckett is back again with another feast of advice, this time for this rock-pushing, diamond collecting, Power Packed escapade.

- MAP – This is readily available on the first few levels by pressing M.
- DIAMONDS – Before collecting these, make sure you're not going to release any rocks or fungus. Try to collect diamonds from the bottom of the area first, so they're not blocked in when boulders drop down.
- ROCKS – Before releasing any rocks, make sure you know where they will land. A rock falling in the wrong place might mean starting again. Try to move as few rocks as possible and remember that they won't balance on diamonds or skulls. A useful tip to remember is that you can push them while they are falling.
- CAPSULE – Collect this for extra time.
- EARTH – Before moving earth, make sure it isn't going to be needed to block a rock.
- SKULL – These are often used as walls in mazes, and they are deadly to the touch.
- WALLS – Not much to note here, but remember that if the edge is curved then rocks will fall off them.
- SAFES – These turn to diamonds when the KEY has been collected, so before you collect the KEY be sure to move any rocks balanced on the safes to avoid getting blocked in.
- CAGES – These are opened by the blue sparks when they hit them.
- BLUE SPARKS – To get these to hit the cage, it's worth knowing that they always follow the left wall. Sometimes you need to position boulders for them to go around (and thus hit the cage).
- EGG – When this falls, it hatches into a blimmin' great monster. To kill this beastie, either drop a rock onto its head or, rather more easily, get on the opposite side of a rock and push it on top of it. The monsters will chase you, so be sure to kill them as soon as they hatch.
- FUNGUS – When released it will spread rapidly, and is lethal to the touch. It can be stopped by walls, rocks and diamonds, so avoid removing nearby rocks and diamonds for as long as possible.
- TRANSPORTER – As its name suggests, it will teleport you to another part of the map. It can only be used once, so make sure you've collected all the necessary bits and pieces from one area before teleporting.
- CROWNS – There is one of these on each level, and they must be collected.
- BOMB – When you have all the diamonds, the crown, and have killed all the monsters on a level, touch this to complete it. And as we gave away the complete game, here is the complete set of passwords – a big thanks to Warren Pilkington, Richard Beckett and the dozens of other people who sent them in (*was it that easy then? – Dave*). Cheers.

OPTS
CHAR
MAPS

Right, I know that key's around here somewhere.

1A. PRELUDE
1B. CITADEL
1C. MORNING
1D. AWKWARD
1E. FRITTER
1F. LAWLESS
1G. RATION
1H. TOBACCO
2A. TOCCATA
2B. UPSTART
2C. OCTAGON
2D. CHAOTIC
2E. MAJESTY
2F. REVENUE
2G. FORESEE
2H. RESERVE
3A. FINALE
3B. ENLIVEN
3C. CONTEST
3D. ILLEGAL
3E. APPEASE
3F. STUDENT
3G. AVERAGE
3H. PHOENIX

ACTION REPLAY POKES

Richard Beckett and Warren Pilkington have been hard at work with their little red boxes again, producing dozens of handy POKEs. To use them, freeze the game, press E to enter the POKEs, then press F3 to restart the game. Even your cat could do it.

CARNAGE

POKE 35032,96	Infinite money
POKE 44693,165	Infinite damage (Player 1)
POKE 44730,165	Infinite damage (Player 2)

REPTON 3

POKE 16953,173	Infinite lives
POKE 41085,0	Fast music

MAYHEM IN MONSTERLAND

POKE 48587,0	Infinite lives
POKE 46621,173	Invincibility
POKE 16055,173	Infinite continues (TAPE)
POKE 16047,173	Infinite continues (DISK)
POKE 48446,169	Lots of time
POKE 48447,9	
POKE 48448,234	

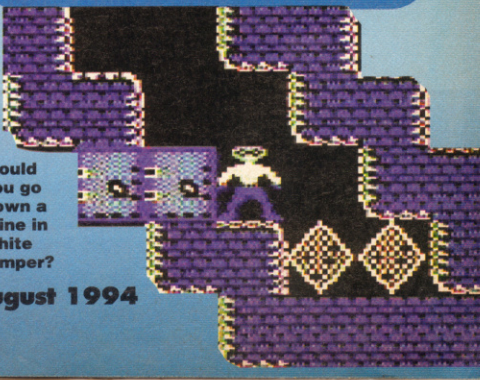
SEYMOUR GOES TO HOLLYWOOD (CODEMASTERS)

Richard Beckett wrote in to point out a useful omission (not emission, Richard!) to our froopy solution. On the King Kong screen, the mallet can be used to smash the crates. Brilliant.

SEND 'EM IN

We're always on the look-out for top quality maps, tips, cheats, solutions, POKEs and other worthy gameplaying advice. Got some? Great! Then you could earn yourself a tenner, because that's what we award the sender of the juiciest tip we publish in this section each month.

Just sling your potential prize-winning bits'n'pieces into an envelope, bung a stamp on the front, then post it to: Andy Roberts' Gamebusters, *Commodore Format*, 30 Monmouth Street, Bath, Avon BA1 2BW. Don't forget to include your name and address, along with any spare twisty, sugar-coated doughnuts you may have.



Would you go down a mine in white jumper?

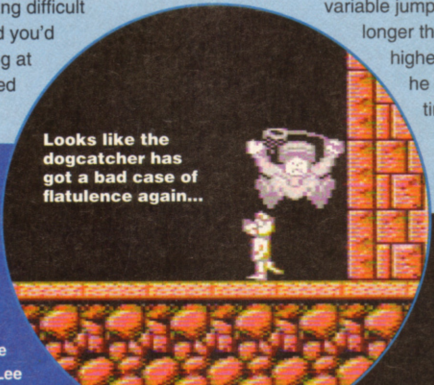
SLEEP WALKER

GAMES Tips

Making your way down-town can be difficult at the best of times. And if you happen to be asleep at the time, it can make matters a lot worse... unless you have a well trained dog. Talking of which, here's Andy with the tips.

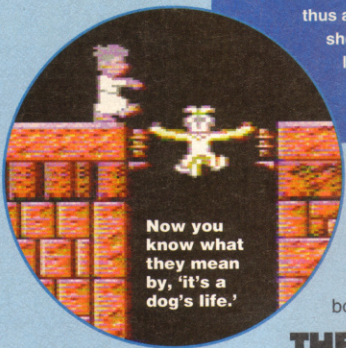
First things first, before you attempt to tackle the game it's probably worth loading up the first level and having a little run around. Y`see, Ralph is a very sophisticated canine and, as such, has plenty of different moves and tricks up his sleeve. It's definitely worth taking time out to develop and enhance your skills.

- RUNNING AND WALKING – Nothing difficult about that, you might be thinking, and you'd be absolutely wrong. Ralph trots along at a reasonably quick pace, but his speed can be increased the longer the joystick is held. After a couple of seconds he begins to run, and moments later will start to charge (just as if he were in Monsterland). If Lee should drop unexpectedly down a gap, you'll need to use the extra speed to catch him before something ghastly happens.
- JUMPING AND LEAPING – Ralph has a variable jump height, in that the longer the joystick is held, the higher he will jump. At best, he can jump almost four times his own height... quite an awesome feat (or rather, awesome feet).



Looks like the dogcatcher has got a bad case of flatulence again...

There are, however, various objects and springboards dotted around which will help Ralph to jump much higher than usual - check out the JUMPING FOR JOY boxout elsewhere on this page.



Now you know what they mean by, 'it's a dog's life.'

MANHANDLING

Learning to manipulate and direct Lee is by far the most important skill to master. Rather surprisingly, the first level is a little tougher than most of the others, and will introduce you to most of the deadly situations you're likely to encounter.

- Simply standing in Lee's way will block his path, and if you pull down on the joystick he will change direction. This allows you to switch very quickly from a 'blocking' position to a pushing position.
- Pushing Lee from behind is a quicker method of getting him through the level, but be sure you know exactly where you're pushing him.
- Kicking Lee from behind will knock the dreamer high into the air, and is an essential skill to master in order to climb buildings or cross impossibly wide gaps – simply push him to the edge of the gap and press the fire button.
- Certain holes allow Ralph to act like a bridge, thus allowing Lee to walk safely over his shoulders and head. However, be sure to leap quickly out of the hole once Lee is across – the pace of the game never lets up.

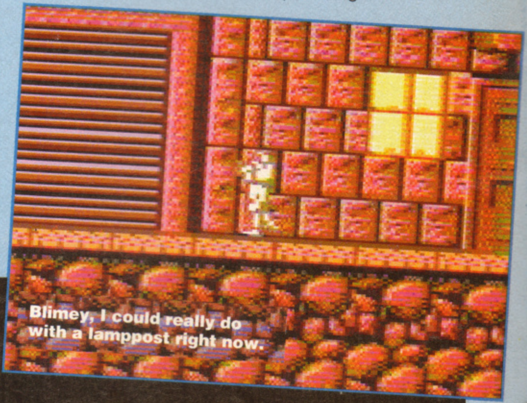
JUMPING FOR JOY (AND PROFIT)

As mentioned in the main playing guide, Ralph has some pretty impressive jumping abilities, but even they cannot help him with some of the huge leaps required to guide Lee to safety. However, as luck would have it, there are quite a few objects strategically placed to allow him to leap higher than a particularly agile flea (relatively speaking, of course). The most notable of these are the telephone cables, found in abundance on level one. These act just like normal platforms, unless Ralph happens to jump on them, in which case they will act like a trampoline and propel him high into the night sky (further jumps will allow him to jump even higher).

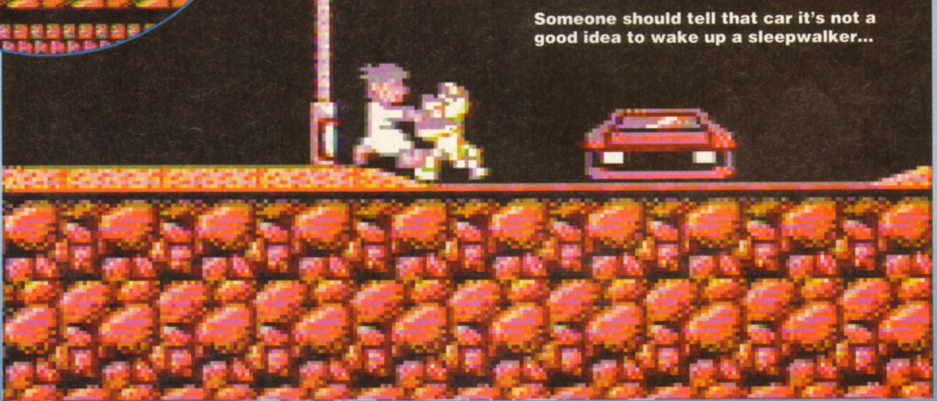
Lee is also able to bounce on the wires – just kick him off a platform and watch him go! However useful the wires are, they can also cause problems. For example, if Lee is walking across the wire when Ralph bounces on it, Lee will fall off, which causes no end of traumas.

THE IDIOT'S GUIDE TO LEVEL ONE

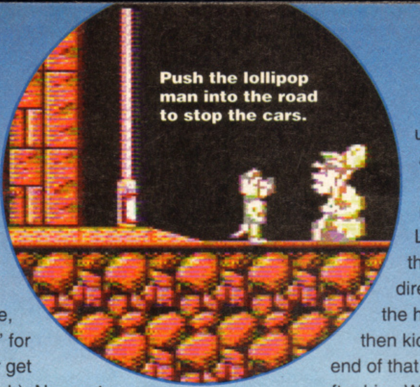
So you've read all the other essential info, right? And you're ready to hit the road and tackle the first level? Great, off we go... from the



Blimey, I could really do with a lamppost right now.



Someone should tell that car it's not a good idea to wake up a sleepwalker...



Push the lollipop man into the road to stop the cars.

start: push Lee to the left, then drop down to the right and close the skylight. Continue down and right, across the telephone cable, then wait in the 'pit' for Lee to catch up (or get behind him and push). Now get to the left of Lee and kick him right up to the ledge above, then jump up and run right to stop him dropping off the edge. When the lift arrives, push Lee onto it and hold him as the lift descends.

At the bottom, drop off the ledge to the left, then push Lee left until you reach a gap (DO NOT push Lee down the gap!). Pull down on the joystick to change direction, then press fire to send Lee back to the right (this will give you enough time to perform the next sequence of events).

Once Lee is on his way, drop down the gap and head left, then knock the man hole cover to close it. Run right a little, and close the next cover you reach, then head right across the huge expanse of water. Jump the gap, then close the final manhole. Now rush back to the left and back up to the street where you left Lee. With any luck, he'll just be arriving back at the gap. Allow him to drop down to the sewer, then push him right up to the water's edge.

Pull down on the joystick to change direction, then wait at the edge until the rotating barrel arrives. When it does, edge backwards until both Ralph and Lee are standing on the barrel (they will move up and down in time with the water). When the barrel starts to move, it should carry both of them safely across to the other side – move quickly off to allow Lee to disembark.

At the other side, push Lee right to the edge of the gap and kick him over, then push him right again and kick him up to the ledge above. Once there, kick him up yet again to the next platform, then up again to the street. Now quickly restrain Lee before he rushes into the road and gets mown down by a hit and run driver, then push him across when the traffic lights are RED. Once safely across, push Lee right and kick him up until he lands in another safe pit.

Now for the really tricky part... Kick Lee left out of the pit, then up onto the platform directly above. Now kick him to the higher platform to the left, then kick him directly off the far left end of that platform – do NOT jump after him. With any luck you'll hear a 'bounce' sound – that's Lee springing up to a higher level on the telephone wire!

Jump after him, bouncing up to the level above. Ignoring Lee for the moment, climb up and right to the top of the building and close the skylight. Now drop down to Lee's level and kick him up and right to the top of the next building along. Now kick him right off the end of the platform, then quickly jump after him to stop him walking into the boiler flames. Head right, kick him over the next gap, then carefully make your way past the next couple of gaps – use Ralph as a bridge to help Lee across – don't attempt to kick him.

When you reach the boiler, restrain Lee to prevent him touching the flames, then allow him to drop right off the edge. Quickly get in front of him and drop through the skylight (yes, you heard me correctly). You see, there is an easy way and a difficult way to complete the level... and this is the easy one. Once you've dropped through the window, you should be bouncing on a trampoline-type-thing. Bounce up and get off to the left, then jump up and right to the platform above. Now go right and drop down the gap – with any luck, you'll hit the wire below when Lee is on it, sending him down to the street below. If he was facing right when he fell, he will simply wander off to the exit without you having to worry. If not, run right along the wire, climb up to the previous ledge (collecting the extra life on the way), then make your way left to the pit where you fell out of the window a few minutes ago.

Head down and right to the street, kill the Dog Catcher which lurks to the right, then push Lee right to the exit. It's as simple as falling asleep.

GENERAL TIPS

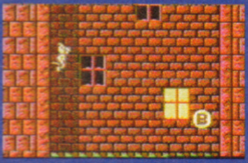
- Stay close to Lee as much as possible, and walk in front of him (as opposed to pushing him from behind) wherever the landscape permits.
- If Lee gets stuck in a dead end, use the opportunity to explore the rest of the level (and ultimately find the route to the exit and collect all the bonuses).
- Use the club whenever possible – don't risk losing Lee by running directly into the path of any guardians or traps that'll slow you down.
- While most obstacles will stun Lee for a short time, falling into water will result in instant death, so be especially careful when crossing it.
- On the first level, don't be tempted to drop down the open skylights to save Lee. Instead, jump over the skylights and knock them closed from the other side. It saves a lot of time.

And that's yer lot for level one. The more astute amongst you may have already worked out that we'll be dealing the dirt on level two next month.

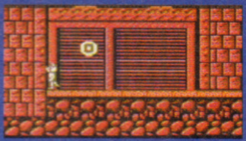
BONUS LEVEL

If you manage to collect all of the B-O-N-U-S icons scattered throughout the level, Ralph will get the chance to play the bonus round (when the level has been completed). Here he must collect as many red noses as possible within the allotted time limit. This is quite a straightforward task, as there are no enemies or obstacles to contend with, and as a result the scrolling is much faster too. The only limit is your skill and reflexes – but, heck, they're only bonus points.

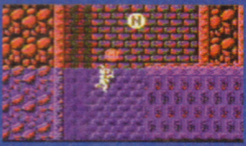
To collect the bonus icons it's best to leave Lee safely walking back and forward in a pit and go scouting round the level.



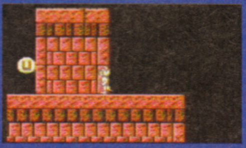
B – After the open skylight at the start of the level jump down to the right twice then head back to the left. You will fall into a pit with a bouncy bottom (I think it's supposed to be a shop awning or something like that) and that's where the icon is.



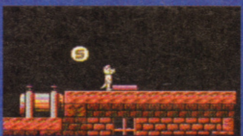
O – Instead of leaping down into the entrance of the sewers jump over it and carry on to the left (but avoid the policeman).



N – When you're down in the sewers, leap into the water (God knows what you'll catch), swim downwards then doggy-paddle as far left as you can go. Let your bouyancy take you up to the room containing the icon.



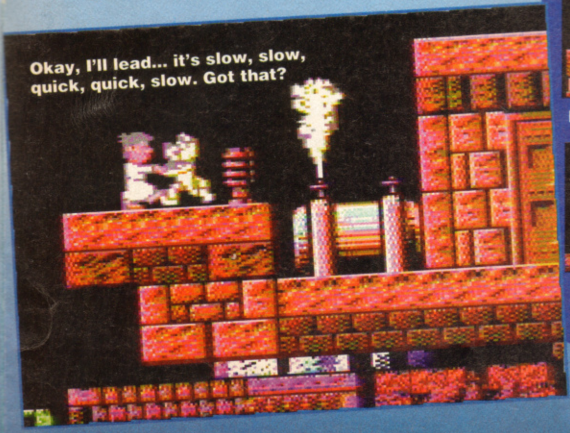
U – Use the second telegraph wire you come across to leap up to the top of the building on the left. Jump down and to the left once then leap left onto the roof of the next building.



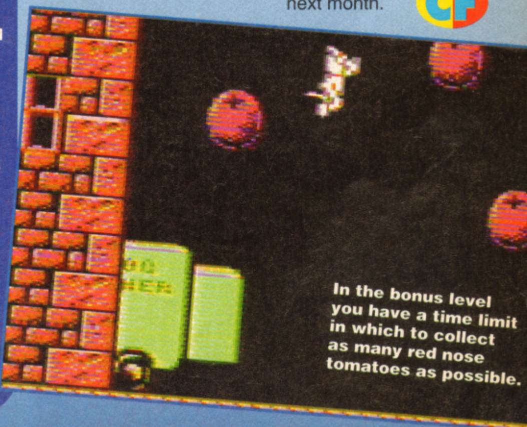
S – You'll find this little beast almost at the extreme top-right of the level. I say almost, because you actually have to jump back one building from the extreme top-left. You can close the skylight while you're there.

IF AT FIRST YOU DON'T SUCCEED...

...Cheat. Or rather, try an Action Replay POKE (*which is a form of cheating if ever I heard one – Dave*). If you'd like infinite lives to mess around with, try `POKE 35230,173` for size.



Okay, I'll lead... it's slow, slow, quick, quick, slow. Got that?



In the bonus level you have a time limit in which to collect as many red nose tomatoes as possible.

SOS

SAVE OUR SPRITES

Frustrated? Depressed? Disillusioned? Downcast? Glum? Pessimistic? Melancholic? Fear not, Andy the Masked Cheater is back again to solve any gaming problems you care to throw at him.

just a bit off the top, please.

FIRST SAMURAI

(Power Pack 17)

Glenn Pickering is still playing our covertape demo from three years ago, but is unable to get past the waterfall at the far right of the level. The only way to cross is to collect six logs, take them to the edge of the waterfall, then summon the Grand Old Wise One – he will turn the logs into stepping stones. The logs are fairly well scattered (and hidden) throughout the level, so the task is a little tough to say the least. Mind you, the waterfall is the easy part – just wait until you meet the dragon!

I hope he realises those bats are a protected species.

FANTASY WORLD DIZZY

(Codemasters)

Down in deepest Surrey, Gary Chapman is having trouble with the infamous Dizzy Hawk. Basically, he can't get past it. What a loser, eh? Well, in fact, he isn't a loser, because he wrote in for help – and now he's going to get it (*will you stop this waffle? – Ed*). So, if you can't get past the Hawk either, here's how: run across the screen, and when the Hawk is about to swoop down at Dizzy, simply press fire to bring up the inventory panel. Now exit the panel and the Hawk will appear miraculously at the top of the screen. Repeat this process as and when necessary to get past the evil bird totally unscathed!

SCORE 003000
DIZZY
LIVES
HOLDING A BURNING TORCH
NOW ENTER
Hey look – no hands!

JET SET WILLY 2

(Software Projects)

Willy's second outing is one of the true software classics, for more than one reason. Mandy Foster from East Yorkshire is having trouble in the Master Bedroom – she keeps getting thrown into a room called The Beginning of the End. Basically, the game contains more bugs than a particularly large cockroach nest, hence the rather annoying situation. Unless you are prepared to try and try again, there is no other way to finish the game.

FLIMBO'S QUEST

(System 3/Kixx)

A fine young chap by the name of Tom Wheeler wrote in to say that he doesn't know how to use the cheat printed in *CF*22 on his cartridge version of the game. Basically, the cheat was for use on the CASSETTE version, published by System 3 (or the KIXX budget re-release). The cartridge version of *Flimbo* has no built-in cheat mode whatsoever. Sorry Tom.

However, Luke Jennings is after a listing for the tape version, so here is that very listing for infinite lives and time. And if you own an Action Replay, use `POKE 5628,173` for infinite lives and `POKE 10392,165` for infinite time.

```
0 REM FLIMBO CHEAT BY WAZ
1 FOR X=512 TO 574:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>7309 THEN PRINT “DATA ERROR”:END
3 POKE 157,128:SYS 512
10 DATA 032,086,245,169,032,141,184,003
11 DATA 169,021,141,185,003,169,002,141
12 DATA 186,003,076,081,003,141,032,208
13 DATA 169,032,141,127,169,169,040,141
14 DATA 128,169,169,002,141,129,169,096
15 DATA 072,173,162,034,201,198,208,010
16 DATA 169,165,141,162,034,169,173,141
17 DATA 053,019,104,141,032,208,096
```

"I hate it when they put too much chilli powder in my food..."

GOLDEN AXE

(Virgin/Tronix)

Not one of the easiest beat-'em-ups around, as Paul Beach from Camberwell has discovered. He'd desperately like an Action Replay cheat, and as luck would have it, I have two. First, if you'd like infinite lives to play with, use `POKE 13158,173`. Note that this needs to be re-entered on every level. Oh, and if you want to get to the next level the easy way, pause the game (by pressing RUN/STOP), then simply hit the the '**:[**' or '**]**;' keys to load the next level.

TOTAL RECALL

(Ocean/Hit Squad)

Paul Power from County Waterford is totally (*groan – Ed*) stuck on this game. In fact, he'd really like a simple cheat. So, on the high score table, simply type LIFE STILL GOES ON to activate the cheat mode. Pausing the game with F1 will allow you to press the LEFT ARROW key (top left of the keyboard) to skip the level. When the next one loads in, you can either press F1 to play that level, or the left arrow again to skip it.

BUBBLE DIZZY

(CodeMasters)

J Rutherford from Southwick is a little fed up with this underwater *Dizzy* adventure, because his/her oxygen disappears like 'a rat up a drainpipe'. Well, here is an Action Replay POKE as requested. Simply freeze the game and enter `POKE 26174,173` for infinite lives.

SIX STEPS TO SHEER CONTENTMENT

1 Get hold of a postcard or sealed envelope.
2 Jot down the name(s) of the game(s) you're stuck on (including the publisher).
3 Specify the type of cheat you'd prefer, or the part of the game you're stuck on (I can't get past the troll on level 4, etc).
4 Include your name & address.
5 Stick a stamp on the front and post it to – SOS, *Commodore Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.
6 Have some choc-chip ice cream.

LISTOMANIA POKERAMA

Flex those fingers and hammer those keys, 'cos it's turbo-charged type-ins time. Oh yes, the secrets of infinity will be yours...

DARK FUSION

(Gremlin)

Today's special is infinite lives, and if you'd like to make your way to the keyboard you can help yourself to hours of mouth-watering gameplay.

```
0 REM DARK FUSION CHEAT BY WAZ
1 FOR X=384 TO 428:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>5090 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 384
4 DATA 032,086,245,169,168,141,208,008
5 DATA 169,057,141,209,008,076,016,008
6 DATA 169,157,141,148,144,169,001,141
7 DATA 149,144,076,000,144,169,000,141
8 DATA 210,042,141,215,042,169,165,141
      9 DATA 238,010,076,000,007
```

VORTRON

(Mastertronic)

Bit of an oldie, but a toughie nevertheless. If you fancy infinite lives and/or energy, give this listing a try – you might even enjoy yourself.

```
0 REM VORTRON CHEAT BY WAZ
1 FOR X=288 TO 324:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>3775 THEN PRINT "DATA ERROR":END
3 INPUT "INFINITE LIVES Y/N";A$:IF A$="N"
THEN POKE 313,1
4 INPUT "INFINITE ENERGY Y/N";B$:IF B$="N"
THEN POKE 318,198
5 POKE 157,128:SYS 288
10 DATA 032,086,245,169,076,141,209,003
11 DATA 169,056,141,210,003,169,001,141
12 DATA 211,003,076,167,002,087,065,090
13 DATA 169,000,141,028,126,169,165,141
14 DATA 018,111,108,047,000
```

METAPLEX

(Grandslam)

To inject some life into this massive (and rather dull) arcade adventure (*oi, Roberts, you're paid to provide games tips, not criticism – that's my job; I'll have my union onto you, if you're not careful – Dave*), here's a splendid Waz listing POKE for infinite lives (*and it's a free country so I'll criticise what I like – Andy*).

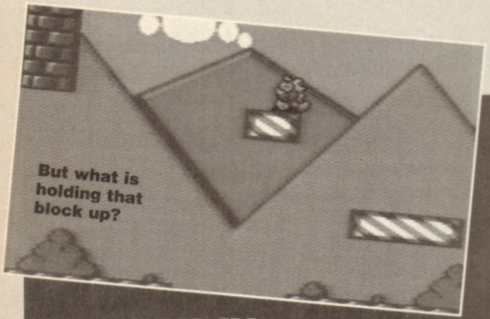
```
0 REM METAPLEX CHEAT BY WAZ
1 FOR X=269 TO 312:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>4877 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 269
4 DATA 032,086,245,169,032,141,114,003
 5 DATA 169,001,141,116,003,076,081,003
 6 DATA 087,065,090,238,032,208,169,046
 7 DATA 141,244,152,169,001,141,245,152
8 DATA 096,169,099,133,072,169,055,133
9 DATA 074,076,056,153
```

REPTON 3

(CF45 covertape)

Now you can add life, sparkle and a new lemon freshness to this *Boulderdash* clone. Simply type in the following listing and RUN it for infinite lives. It could change your life (but probably not).

```
0 REM REPTON 3 CHEAT BY WAZ
1 FOR X=516 TO 551:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>3320 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 516
4 DATA 032,086,245,169,019,141,207,003
5 DATA 206,208,003,096,087,065,090,169
6 DATA 032,141,013,010,169,002,141,014
7 DATA 010,076,230,003,169,173,141,017
8 DATA 042,076,027,008
```



But what is holding that block up?

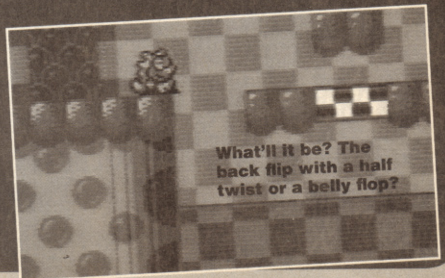
MAYHEM IN MONSTERLAND

(Apex)

Now that our sprawling player's guide has finished, it seems rather appropriate to print some cheats for 'The greatest CPC game ever' (*either that or it's just another gratuitous Mayhem plug – Ed*). So, depending on which version you own, type in one of the following listings for infinite lives and continues, invincibility or even loads of extra time.

```
0 REM MAYHEM TAPE CHEAT BY WAZ
1 FOR X=519 TO 609:READ Y:C=C+Y:POKE
X,Y:NEXT
2 FOR X=285 TO 323:READ Y:C=C+Y:POKE
X,Y:NEXT
3 IF C<>15439 THEN PRINT "DATA ERROR":END
4 FOR I=0 TO 4:READ A$,W1,W2:PRINT A$;"
Y/N":INPUT B$(I)
5 IF B$(I)="N" THEN FOR X=W1 TO W2:POKE
X,234:NEXT X
6 NEXT I:POKE 157,128:SYS 519
10 DATA 032,044,247,056,160,017,140,064
11 DATA 003,136,140,062,003,032,108,245
12 DATA 169,032,141,233,016,169,061,141
13 DATA 234,016,169,002,141,235,016,162
14 DATA 157,189,158,016,157,158,002,202
15 DATA 208,247,169,166,141,020,003,169
16 DATA 002,141,021,003,208,254,141,013
17 DATA 220,072,169,032,141,240,003,169
18 DATA 082,141,241,003,169,002,141,242
19 DATA 003,104,096,169,076,141,212,192
20 DATA 169,032,141,213,192,169,001,141
21 DATA 214,192,096,087,065,090,169,000
22 DATA 141,203,102,169,173,141,029,095
23 DATA 141,183,062,169,169,141,062,102
24 DATA 169,009,141,063,102,169,234,141
25 DATA 064,102,169,009,141,210,102,108
26 DATA 022,000
27 DATA INFINITE LIVES,288,292
28 DATA INVINCIBILITY,295,297
29 DATA INFINITE CONTINUES,298,300
30 DATA LOTS OF TIME,301,315
```

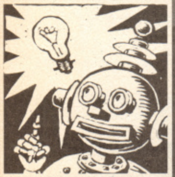
```
0 REM MAYHEM DISK CHEAT BY WAZ
1 FOR X=50432 TO 50517:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>10932 THEN PRINT "DATA ERROR":END
3 FOR I=0 TO 4:READ A$,W1,W2:PRINT A$;"
Y/N":INPUT B$(I)
4 IF B$(I)="N" THEN FOR X=W1 TO W2:POKE
X,234:NEXT X
5 NEXT I:PRINT CHR$(147);"INSERT DISK &
PRESS A KEY"
6 POKE 198,0:WAIT 198,1:SYS 50432
10 DATA 169,001,168,162,008,032,186,255
11 DATA 169,001,162,051,160,197,032,189
12 DATA 255,169,000,032,213,255,169,038
13 DATA 141,043,195,169,197,141,044,195
14 DATA 076,064,194,087,065,090,169,052
15 DATA 141,253,084,169,197,141,254,084
16 DATA 076,237,082,050,169,009,141,210
17 DATA 102,206,203,102,169,173,141,029
18 DATA 095,141,175,062,169,169,141,062
19 DATA 102,169,009,141,063,102,169,234
20 DATA 141,064,102,076,128,001
21 DATA INFINITE LIVES,50489,50491
22 DATA INVINCIBILITY,50494,50496
23 DATA INFINITE CONTINUES,50497,50499
24 DATA LOTS OF TIME,50500,50514
```



What'll it be? The back flip with a half twist or a belly flop?

TECHIE TIPS

Techie hitman for hire – no problem too large or too complex. If you've got techie 'troubs that need fast, accurate elimination, then Jason Finch is your man.



COMMAND PERFORMANCE

Dear Techie Tips,

1 **In the letter 'Split Personality' which was published in Techie Tips in *CF*32, you said that using a machine code program you can make a C64 emulate a Spectrum 48K. Has *CF* reviewed a program that can do this yet and, if so, where can I get hold of a copy?**

2 **With games written for keyboard use only, is there anything I can do to get them to respond to a joystick?**

3 **Is there a MERGE command on the '64 that will enable me to load, for example, first lines 10 to 1000 and then lines 1010 to 2000 at a later time? I need this function to work from cassette and not disk.**

CA Neppiras, Bournemouth.

1 No, there have been no programs published that will make a C64 emulate a Speccy. One was available back in the 12th century BC when '64s first appeared, but unfortunately it was the only one and is now long gone. If anybody, presumably incredibly old bodies, have a Speccy emulator that they are desperate to sell, please let me know and I'll pass the details on.

2 Assuming you're an expert in machine language programming, yes. But if you're not, there's no chance. So stay tuned to the Mean Machine Code series! It would entail you searching through the game's code for the relevant bit that dealt with reading the keyboard and then changing it. How you would have to change it depends greatly upon how the original programmer decided to write the game.

3 There is no in-built MERGE command, unfortunately, but there is a rather cunning way of merging two Basic programs from tape. Follow these steps and you can't possibly go wrong:

a Load in one of the programs with the normal LOAD command.

b Get a blank bit of tape handy (preferably a bit that's inside a cassette) and enter `OPEN 1,1,1,"PROGNAME":CMD 1:LIST`

c Wait while the program is saved in a different format to normal.

d When the `READY` prompt reappears, enter `PRINT#1:CLOSE 1`

e Now load in the program that you want to merge with the first one.

f When that's finished, get to the place on the cassette where you just stored the new version of the first program.

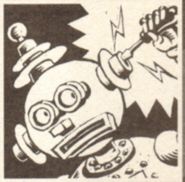
g Now you need to enter `POKE 19,1:OPEN 1` to read in the new version.

h When `READY` reappears, clear the screen (hold SHIFT and tap the CLR/HOME key) and press exactly three cursor downs.

i Enter `PRINT CHR$(19):POKE 198,1:POKE 631,13:POKE 153,1`

j You'll get an error message when the tape stops, but just ignore it and enter `CLOSE 1`

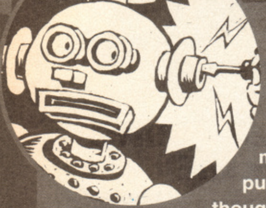
k Admire the fact you've just merged two Basic programs! Enter LIST to prove it. **Jason**



FOR MY NEXT TRICK

Dear Techie Tips,

About five or six years ago I had a C16 computer and wrote many machine code routines and games which I saved to tape using the built-in monitor. Alas, my C16 is long gone but I now have a C64



HARD ACT TO FOLLOW

Dear Techie Tips,

At the moment I am considering expanding my C64 but before purchasing anything I thought I would check with you about the most appropriate hardware.

1 **Is it possible to buy a 3.5-inch disk drive which could be used with the C64 or will it be necessary to use the 5.25-inch 1541?**

2 **If it is possible to use a 3.5-inch disk drive, can it be plugged directly into the C64?**

3 **Which printer would you recommend out of a 1525 dot matrix, 1526 bi-directional dot matrix or an MPS1230?**

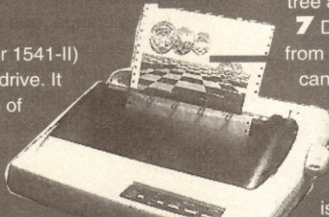
4 **Which printer would you recommend for colour printing?**

5 **Would I need an interface card with any of the above printers?**

6 **Is it possible to have a printer, disk drive and mouse connected simultaneously to the C64?**

7 **Could you give me an indication of prices, a list of possible suppliers and how I might purchase direct from Commodore?**

P Kelly, Derry.



When it comes to printers this one's a star.

1 The 5.25-inch 1541 (or 1541-II) is the standard C64 disk drive. It would be best to buy one of these as it ensures the software you buy will be compatible. There is a 3.5-inch drive, the 1581, which is C64 compatible, but unfortunately there are no reliable suppliers in the UK.

2 The 1581 connects to the C64 in the same way as any other drive.

3 Of those three, I'd go for the MPS1230.

4 For colour printing you should consider the LC200 colour printer package from Datel Electronics Ltd (☎ 0782 744707).

5 The only printers that require an interface card are parallel (or Centronics) printers.

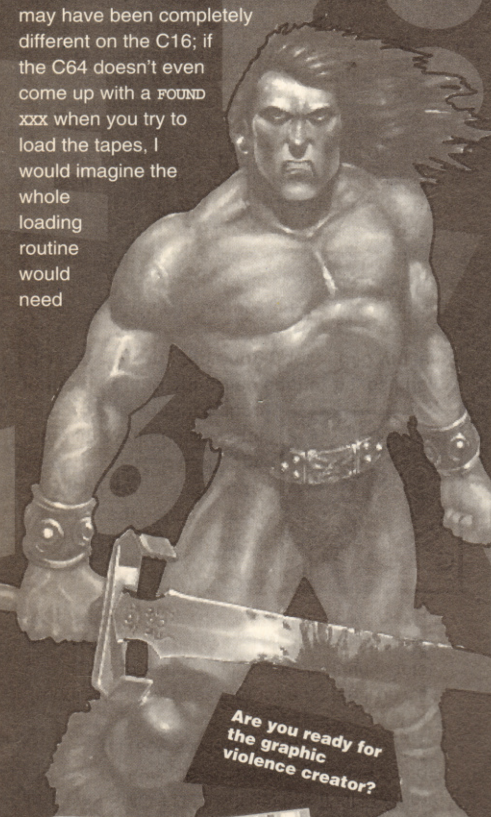
6 Yes, no probs. You can have four disk drives, three cartridges, two mice and a partridge in a pair tree all connected without hassle.

7 Don't even think about purchasing direct from Commodore; it's not the done thing. You can get compatible printers – not necessarily the ones you mentioned, though – for around £100 to £150 (see the letter titled MAYBE NEXT YEAR). Oasis do one for £200 but this is a tad expensive for what you get.

The problem now is that hardware suppliers for the C64 are, unfortunately, dwindling. Check out your local newspaper or Uncle Dave's Buy-A-Rama (on page 16); you can normally pick up a decent compatible printer for much less than a new one will cost you. If you want a colour printer, go straight to Datel. Remember, though, the thing about printers is that so long as you buy an interface, you should be able to connect any printer and not just the standard C64 ones. **Jason**

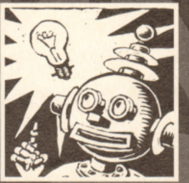
with an MPS803 printer and an Action Replay cartridge. However, I cannot load the C16 machine code on to the C64. The tapes that I have represent many hours of programming and I would like to know if there is a way of fooling the C64 into thinking that my old tapes are in a suitable format?
George Sharp, Kent.

I don't know of any way that you would perform this cunning piece of trickery. Perhaps you could find another mug that bought a C16, borrow it, load the proggies, write them out and then re-enter them on the C64. The tape speed and method of storage may have been completely different on the C16; if the C64 doesn't even come up with a `FOUND xxx` when you try to load the tapes, I would imagine the whole loading routine would need rewriting. I have not seen a C16-to-C64 tape converter around, but if anyone knows differently please let me know and I'll pass on the info! **Jason**



Are you ready for the graphic violence creator?

GAC CONTROL



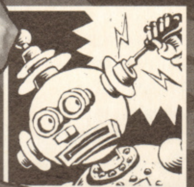
Dear Techie Tips,
On various *GAC* (*Graphic Adventure Creator*) games I have seen, the colour of the text changes at various points. I have found the control characters to print in reverse, but I'd like to know where the others are. Can you help?
Craig Payne, Rotherham.

Graphic Adventure Creator (GAC) uses the control code 'I' to change the cursor (ink) colour. The control code 'B' changes the border colour and 'P' changes the background (paper) colour. To obtain a control code you hold down the CTRL key and press the relevant letter. You follow these codes with a number or a capital letter that selects which of the colours is to be used. The numbers and letters that will work are:

0 black
1 white
2 red
3 cyan
4 purple
5 green
6 blue
7 yellow
8 orange
9 brown
10 pink
11 dark grey
12 medium grey
13 light green
14 light blue
15 light grey

All of this is explained in the manual, which you should have... **Jason**

MAYBE NEXT YEAR



Dear Techie Tips,
In response to the letter headed HAPPY BIRTHDAY in *CF*42. I would like to recommend an Epsom Star LC20. It only costs around £135 and should be very easy to get hold of (try any computer shop). The replacement ribbons are also very easy to get hold of. It's fully compatible with *Mini Office 2* which also lets you use all the codes for it. It has four built-in fonts, as well as international character sets, proportional spacing, two sizes of text and condensed text. It's very easy to use and good as a first-time printer.

To get it up and running easily you'll be best off with a Centronics Printer Interface Cable from Datel which will cost around £13 and is advertised inside the front cover of almost every issue of *CF (until the ad moved last month – dave)*. Phew! I think that covers everything. I bet you don't print this now.
Gavin Gunn, Solihull.

Thanks for the info Gavin! The only thing you didn't cover is where you actually got hold of this printer, although as you said, any computer shop should be able to get hold of one. **Jason**

IN THE BEGINNING

Dear Techie Tips,
I have recently acquired a C64 with a cassette deck, two joysticks, numerous games and the manual. However, I find there are lots of things I do not understand about computing terminology.
1 I have copied a listing for *Breakout* from a book but would like to use a joystick instead of the cursor keys to move the bat. Can you kindly explain how this can be done?
2 In a recent *CF* you said that if DATA in your programs is altered, readers should change the checksum. What is this please?
3 Can you save DATA to tape on its own without being part of a program? If so, how?
4 How can one program be merged with another when both programs start with the same line numbers?
5 Although my computer works with your *Speech* program, it won't play music. Why?
6 What does *SEUCK* mean?
L Grinston, Selby.

1 To read from a joystick in port two you must do `A=127-PEEK(56320)` and then use the variable `A` to determine the direction in which the joystick is being pushed. For example:

```
10 A=127-PEEK(56320)
20 IF (A AND 1)=1 THEN PRINT “UP”
30 IF (A AND 2)=2 THEN PRINT “DOWN”
40 IF (A AND 4)=4 THEN PRINT “LEFT”
50 IF (A AND 8)=8 THEN PRINT “RIGHT”
60 IF (A AND 16)=16 THEN PRINT “FIRE”
70 GOTO 10
```

You will have to amend the program yourself so that the `PRINT “DIRECTION”` bits in the above snippet are replaced with whatever is supposed to happen when the cursor keys are pressed.

2 The checksum in *CF*'s programs is the bit that goes something like `IF C<>5000 THEN PRINT “DATA ERROR”:END`. A checksum is a number that is built up as the program reads in the DATA statements (`READ Y:C=C+Y`). As it is based upon

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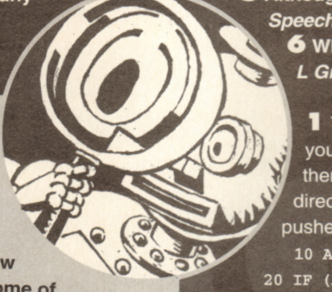
What has Jason done to deserve this? He wouldn't normally do this kind of thing.

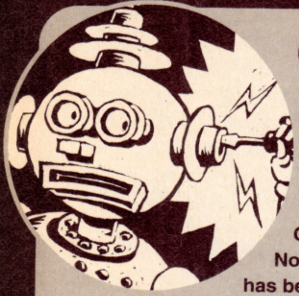


CAN YOU FORGIVE HER?

Dear Techie Tips,
I would very much like to damage my little sister at this point. We just had an argument and out of spite she wiped a magnet over a load of my disks before I could stop her. Now when I try to load the programs on them, some of them work and some of them don't. They weren't really important programs but I did want to keep them. Can you suggest a way for me to get them working again?
Rob Anderson, Cheltenham.

No – if the disks have been magnetised there is absolutely nothing you can do to rescue the programs, unfortunately. Well, there is one vague hope – you could try a sector editor to find out which sectors weren't damaged and then try to recover bits and bobs. However, I wouldn't hold your breath in anticipation. Could I possibly suggest that you scrape a rusty nail across her favourite compact discs and see how she copes with repairing them? **Jason**

CODING COLLISIONS



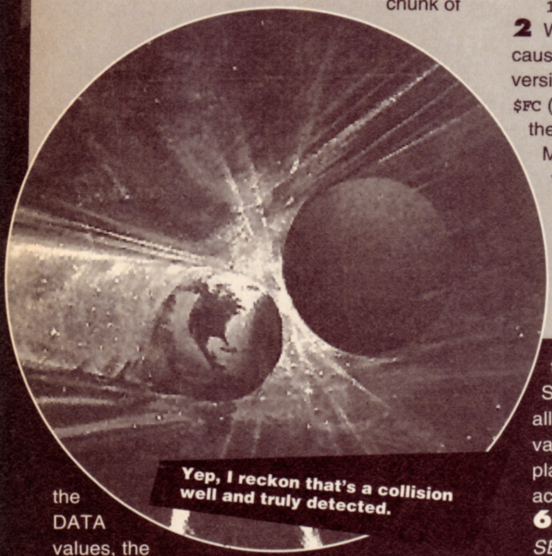
Dear Techie Tips,
1 In *CF*41 you included a program under the heading of Collision Detector. No-one in our club has been able to change this program into a machine code equivalent successfully. Please, if possible, could you convert this entire program into machine code?
2 Er... and could you explain the answer to the above question?
Tripod User Group, Earth.

1 The machine language version of the program is rather long and can be found on this month's Techie Tips program on the Power Pack. I've included both a Basic DATA loader and an assembly language program that is compatible with 6510+ assembler. I would be interested to know which particular bits you were having trouble getting converted.

The assembly language version of the program follows the original Basic program very closely indeed, and is split up into chunks with comments showing the Basic line that the next chunk of assembly language represents. For example, the program's first few lines are:

```
1000 ; 100 REM COLLISION DETECTOR BY
J.FINCH
1010 ;
1020          *=$C000
1030 !
1040 ; 110 FOR X=0 TO 36 STEP 18:FOR Y=0
TO 8:POKE 832+X+Y,240:NEXT Y,X
1050 ;
1060          LDA #0
1070          STA $FB
1080 L110N1   LDY #0
1090 L110N2   TYA
1100          CLC
1110          ADC $FB
1120          TAX
1130          LDA #240
1140          STA 832,X
1150          INY
1160          CPY #9
1170          BNE L110N2
1180          LDA $FB
1190          CLC
1200          ADC #18
1210          STA $FB
1220          CMP #(36+18)
1230          BNE L110N1
1240 !
```

2 Well, I could if you'd told me what bit of it was causing the problem. The machine language version uses registers to store variables; `$FB` and `$FC` (in the main section of the program) refer to the horizontal position of the sprite and the MSB register value. `$FD` and `$FE` correspond to the variables `DX` and `DY` in the Basic program. As I've split the assembly language program up into chunks that correspond directly to the lines of the Basic program, you should be able to follow what is going on quite closely. **Jason**



Yep, I reckon that's a collision well and truly detected.

the DATA values, the checksum will be wrong if one of the DATA values has been entered incorrectly. Therefore, changing the DATA gives a new checksum (which simply means CHECK the SUM of the numbers).

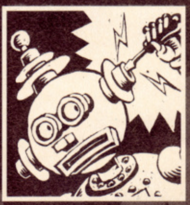
3 You can save a lot of DATA lines to tape by using the normal `SAVE` command; they don't need to be part of a bigger program.

4 The thing here is to change the line numbers of one of the programs, and to amend any `GOTO`s and `GOSUB`s accordingly.

5 Dubious question, this one. You cannot put a cassette in the tape deck and play music that way; the tape deck is merely aimed at loading computer programs. The computer can play music specially written and coded for the C64, though. Your computer has a chip called the Sound Interface Device (SID to its friends) which allows it to play up to three notes at once in a variety of different forms. The music the C64 can play is stuff like in-game music and the tunes that accompany public domain demos.

6 It stands for *Shoot-'Em-Up Construction Kit*. *SEUCK* is a piece of software that allows people to write games without knowing anything about programming. **Jason**

SAVED!



Dear Techie Tips,
How do you save bits of memory to tape from the Action Replay Mark 4 machine code monitor?
Dan Meddlings, Hastings.

Enter `S"FILENAME",1,C000,D000` at the dot prompt to save the memory from `$C000` to `$D000` (you have to use hexadecimal) to tape. See you next month. **Jason**

QUICK SHOTS

- **Is there a good adventure programming utility for the C64?**
Matthew Alston, Preston.

GAC, the *Graphic Adventure Creator*, is pretty good. There's also something called *The Quill* and various other ones appeared on the market from time to time a number of years ago. **Jason**

- **What do the SYS commands do?**
Brian Phillips, Swindon.

SYS commands execute machine code programs on the C64. For example, in Techie Tips I often give Basic loaders for machine code routines. These machine code routines start at a particular address in the computer's memory, say `49152`. To start them up you have to enter `SYS 49152` or similar, depending on the start address of the program. **Jason**

- **I need to buy a parallel interface for my printer so that I can connect it to my C64. Is there a cheap one available?**
Peter Williams, Milton Keynes.

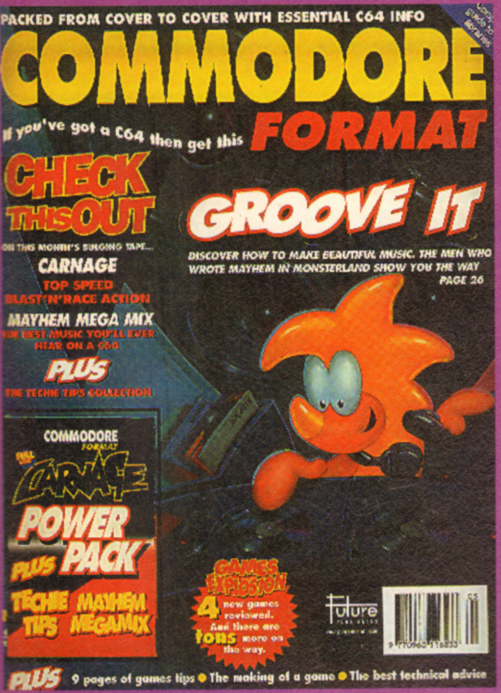
Yes. For just short of £30 you can get one from Trading Post, Victoria Road, Shifnal, Shropshire, TF11 8AF. Their advert should be lurking around *CF* somewhere. **Jason**

- **Can you upgrade a C64 to be an Amiga and can you run C64 games on an Amiga ?**
James Hiller, Ashford, Kent

No, you can't upgrade a C64 to be an Amiga, though if the Electric Boys are to be believed (see page 31) it might be possible to upgrade it to the equivalent of one. And using a C64 emulator (there are a few available from Amiga PD libraries) you can play some C64 games on an Amiga. **Jason**

GOT A PROBLEM?

If it's got anything to do with bad breath, spark plugs, your neighbour's dogs or Anne Robinson, sorry but there's not a lot we can do about that. But if your problem's of a C64 techie variety, that's right up Jason's street, so jot it down (or even better, print it out – you should see some of the handwriting we have to decipher – unless, of course, the problem is with your printer) and send it to: Techie Forum, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.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CF23 Power Pack games: *Defenders of The Earth, Johnny Reb 2.* Demos: *Bug Bomber, Nobby The Aardvark, Biff.* Reviews: *Cool Croc Twins, Turbo The Tortoise, Xenomporph.* Gamebusters: *Maze Mania, Rainbow Islands, Super Seymour.*

CF24 Power Pack games: *Famous Five.* Demos: *Ugh!, Cool Croc Twins, Match of the Day, Fuzzball* (never released). Reviews: *Mega Sports, Ugh!, Elvira 2, Hagar The Horrible, Nobby The Aardvark.* Gamebusters: *Space Crusade.* Specials: Getting the most out of your datassette (a popular one this), Typing in listings.

CF25 Extra covertape: *Saracen Paint.* Power Pack games: *John Lowe's Darts. Demos: Slicks, Hagar.* Reviews: *Hook, Match of the Day, Bangers and Mash, Count Duckula 2, Frankenstein, Slicks.* Gamebusters: *Space Crusade, DJ Puff, Vendetta.*

CF26 Power Pack: *Twin Tiger, Cosmic Causeway, Bomber.* Demos: *Stuntman Seymour, Doc Croc.* Reviews: *Stuntman Seymour, Super All-Stars,Popeye 3.* Gamebusters: *Space Crusade, DJ Puff.* Specials: First part of Let's Make A Monster.

CF27 Power Pack games: *Deflektor, Alternative World Games, The Muncher.* Demo: *Sceptre of Baghdad.* Reviews: *Crystal Kingdom Dizzy, Bully's Sporting Darts, Crazy Cars, Locomotion.* Gamebusters: 13-page *Creatures 2* special.

CF28 Power Pack games: *First Strike, Fifth Gear.* Demos: *Locomotion, Reckless Rufus, Nick Faldo's Championship Golf.* Reviews: *International Tennis, Cool World, Nick Faldo's Golf, Paint and Create.* Gamebusters: *Spellbound Dizzy, Famous Five.*

CF29 Power Pack games: *Herobotix, Battleships, Highway Encounter.* Demo: *Carnage.* Gamebusters: *Winter Camp, Spellbound Dizzy, Batman – The Caped Crusader.* Reviews: *WWF European Rampage, Sceptre of Baghdad, Playdays, Magic Rufus, Dalek Attack, Street Fighter 2, Superstar Seymour, Lethal Weapon.*

CF30 Power Pack games: *Slayer, Rebounder, Daedalus, Blackjack 21.* Gamebusters: *Creatures, Reckless Rufus, Winter Camp.* Reviews: *Carnage, Gladiators, Football Manager 3, Spelling Fair.* Specials: Writing good *SEUCK* games.

CF31 Power Pack games: *Cauldron 2, Snare, Subterranea, Monster Mash.* Demo: *Arnie 2.* Gamebusters: *Stuntman Seymour, Dalek Attack, Crystal Kingdom Dizzy.* Reviews: *McDonaldland, Table Tennis, Snare.* Specials: Football management sims.

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CF33 Power Pack games: *Snackman, ATA, Water Polo, Corya 2.* Gamebusters: *Lethal Weapon, Thrust.* Reviews: *Sleepwalker, Robin Hood, WWF, Robocod, Darkman, 4-Most World Sports.*

CF34 Power Pack games: *Arac, Corya 3, Shellshock.* Gamebusters: *Lethal Weapon, The Simpsons. Argon Factor, Addams Family, Liverpool.* 24-page special: The best C64 games still available.

CF35 Power Pack games: *Space Academy, Hallax.* Demo: *Lemmings.* Gamebusters: *Last Ninja 1,2 & 3.* Reviews: *Suburban Commando, Pirates, Mercs, Turbocharge.* Specials: The 64SX, Ultimate Beat-'Em-Up.

CF36 Power Pack games: *Starray, Squibbly Skwob.* Demos: *Suburban Commando, Breakthrough.* Gamebusters: *The Simpsons, Carnage, Street Fighter 2, Lethal Weapon, Cool World.* Review: *Bee 52.* Specials: Ultimate Flight Sim, Inside Your C64.

CF37 Power Pack games: *Nebulus, I Alien, Blockie, Kron, Lunar Landing, Game Over, Cyforce, Grod the Pixie, Vioris.* Demo: *Mayhem In Monsterland.* Gamebusters: *The Simpsons, Lemmings, Street Fighter 2, Cool World, Suburban Commando.* Review: *Alien 3.* Specials: Business software, platform games.

CF38 Power Pack games: *Lifeforce, Freddy Hardest, Jailbreak.* Demo: *Mayhem In Monsterland.* Gamebusters: *The Simpsons, Nebulus, Suburban Commando, Castle Master, Game Over, Nobby The Aardvark, SF 2, Bee 52.* Review: *Mayhem.*

CF39 Power Pack games: *Freddy Hardest Part 2, Deep Strike, Volcan, Robber.* Gamebusters: *Simpsons* (yawn), *Nebulus, Suburban Commando, Castle Master, SF2, Nobby.* Reviews: *Lemmings.* Special: The Apex Boyz show you how to design games.

CF40 Power Pack games: *Jocky Wilson's Darts, IO, Interword.* Gamebusters: *Mayhem, Suburban Commando.* Specials: Microdrives.

CF41 Power Pack games: *Future Knight, Vengeance.* Gamebusters: *Dizzy, Nobby The Aardvark, Mayhem, Volcan.* Specials: Essential EDOS – loadsareviews.

CF42 Power Pack games: *Stormlord, Deliverance.* Gamebusters: *Dizzy, Prince of the Yolk Folk, IO, Seymour Goes To Hollywood, Nobby The Aardvark, Sceptre of Baghdad.* Special: The best and worse games ever.

CF43 Power Pack games: Reader games extravaganza. Gamebusters: *Mayhem, Nobby, Future Knight.* Specials: How to make your games scroll, A-Z of sports sims, The return of Secret of *SUECK*cess.

CF44 Power Pack: *Carnage, Mayhem Mega MIx Part 1.* Gamebusters: *Mayhem, Nobby, Future Knight.* Reviews: *Penguin Tower, Archetype, Time Crystal.* Specials: Making music, PD library list, diary of a game: 10th Dan.

CF45 Power Pack: *Repton 3, Speech* (synthesiser), *Mayhem MegaMix Part 2,* 6510+ Assembler. Gamebusters: *Stormlord, Nobby, Mayhem.* Specials: Multi-player games, Electric Boys interviewed, how to draw better graphics.

CF46 Power Pack: *Bonecruncher*, Complete level of *Mayhem, Quadraped Tearaways* music demo. Gamebusters: Final level of *Mayhem, Stormlord, Wizball, Carnage.* Reviews: *Squarescape, Escape From Arth, Wilberforce.*

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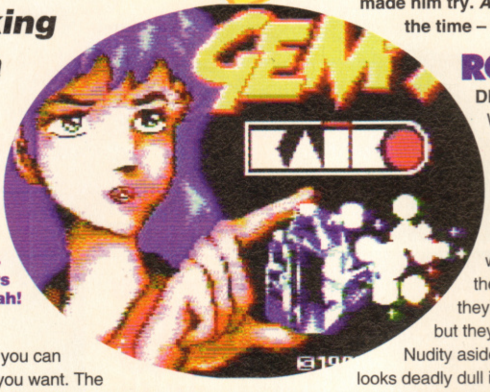
BRAIN STRAIN

Puzzle games are odd little items, so we needed an odd little person to talk about them. Which is why we dragged Trenton Webb kicking and screaming back to CF to host a special quiz show featuring 12 classic '64 puzzlers and a motley panel of guest celebrities...



Gem X – the C64 had Manga years ago – hah!

Welcome to *The Facton Kryptor*, the show that tests contestants' problem-solving skills to the very limit. As usual three of the nation's finest minds will battle it out on cream of C64 puzzle crop to find out not only who has that elusive Facton Kryptor, but which games have it too. And playing for the ghastly glass trophy today are:

- **Dhalsim:** The stretchy star of *Street Fighter 2* will be attempting to prove that quick thinking really is a substitute for Yoga Fire.
- **Clyde Radcliffe:** The animal rights campaigner from the epic *Creatures* saga will be using his wits instead of his whiffy breath. Has he got a hope in halitosis of making the grade?
- **Arnie:** The C64's most famous psycho has a quiet side which involves knitting, crosswords and theatre. Or that's what he told us and we weren't about to argue!

ROUND 1: PIPEMANIA

TOUCHDOWN

Can you keep the green goo from spilling all over that nice grid? That's your task in *Pipemania*. In this classic 'against the clock' puzzler your job's to build a pipe network that will carry the sludge around the screen. The trouble is that the game decides which piece of pipe you can use next – and you can bet it's not the one you want. The result is a tangled mess of tubes that (hopefully) will take the watery mess far enough for you to finish the round.

Pipemania is a game for folk who can make the best of a bad job. The random sequence of pieces forces you to plan ahead and hope that the right bit will appear to bridge the hole you've left before the liquid gets there. It invariably does, but only in the nick of time, so you need a cool head and quick hand.

SCORES: Dhalsim: 10 Clyde: 5 Arnie:0

Dhalsim wins easily. Clyde has motivational problems because there's no one to save. Arnie gets carried away with the explosion effect for getting rid of misplaced pieces.

ROUND 2: LEMMINGS

US GOLD

This Psygnosis star has had some odd labels attached to it, but a puzzler it certainly is. With limited lemmings, finite life-saving attributes to give them and a clock ticking away in the background it forces you think on your feet – and then enact the plan you come up with precisely. It's this extra element of arcade accuracy that makes *Lemmings* a little different from the puzzle crowd.

The theme remains the same throughout the entire game (get as many lemmings as possible to safety) but the complexity of the puzzles is pumped up every stage of the way. At first the solution is the obvious use of an attribute at a specific moment, but later lateral thinking comes into its own when multiple skills and their unexpected effects are needed to beat the game. *Lemmings* is a perfect example of how to wrap a puzzle game up so no-one notices it is one – until they're hooked.

SCORES: Dhalsim: 5 Clyde: 10 Arnie:0

Well it was bound to go the *Creatures* star – it involved saving folk. Dhalsim's religious background made him try. *Arnie* just used the nuke effect all the time – and grinned while he was at it!

ROUND 3: GEM X

DEMONWARE

We've all seen the odd Japanese cartoons for sale in HMV – *Akira*, *High School Vixen Wars*, etc. Well, the girls from this genre make an appearance here as they 'host' this mix-and-match jewel game. Quite why they are here and quite why they've got so few clothes on while they're doing it is never fully explained, but they are, so we'll just have to accept it. Nudity aside, *Gem-X* is one those games that looks deadly dull in screenshot but proves massively engrossing once you actually start playing.

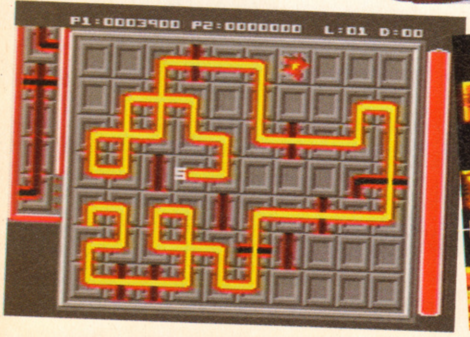
The aim is to clear a jewelled grid of diamonds, rubies, etc. Each colour stone needs to be stacked against similar stones in specific patterns to make them disappear. When they 'blip' out of existence, the others fall around the screen and cause you yet more matching problems. This does sound tediously dull, but it's one of those games where once you grasp the basic principals then everything becomes clear. You realise just how badly you messed up that last level, how you could have saved time and milked more points. It's a pride thing. Play it and you'll understand.

SCORES: Dhalsim: 0 Clyde: 0 Arnie: 10

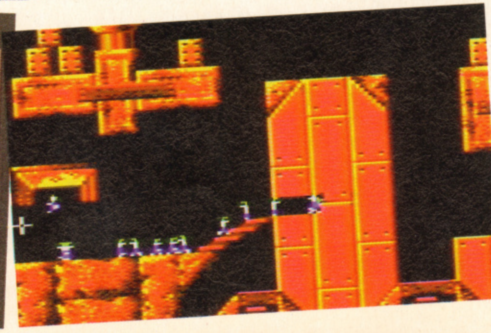
A sad round for all. Dhalsim rejects wealth. Clyde didn't understand what he had to do. Arnie grinned a lot made funny noises every time one of the Manga cartoon girls appeared.

ROUND 4: TILT CODEMASTERS

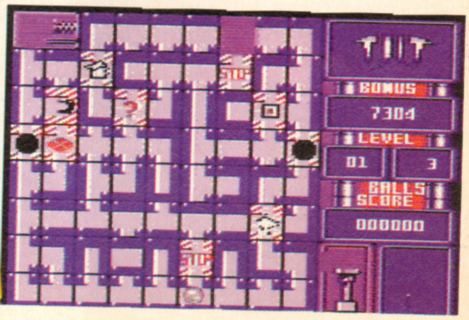
The basis of many C64 computer games can be seen way back in the distant past of toys – circa 1970. Back then, when children still pulled coal wagons down mines and pit ponies were sent climbing chimneys, one of the most popular forms of toy was a small glass case with a bead in it. The bead was free to roll



Pipemania – does anybody know what that goo is supposed to be? Or shouldn't we ask?



Lemmings – it was all Walt Disney's fault, you know. Hew forced those creatures over the cliff.



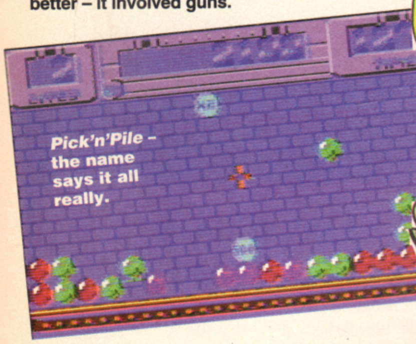
Tilt – nothing to do with cheating at pinball, but rather based on an ancient plastic toy.

around and the aim was to get it into awkward-to-reach holes. It wasn't much but it made them happy. *Tilt* is ostensibly a modern version of the same game, only thanks to the miracle of computing there's some point to whole affair now – namely points.

In *Tilt* the path of the bead (we'll call it that for old time's sake, okay) is blocked by gates, pits and all manner of traps that you have to avoid, an act that isn't made any easier by the motion of the ball you're supposed to control. It's not so much a puzzle game as a test of your temper, though. One for the patient and the old-timers, eh Ollie?

SCORES: Dhalsim: 5 Clyde: 10 Arnie: 0

***Tilt* proved to right up Clyde's street because it involved traps. Dhalsim kept stretching his arms around the monitor and tipping it. Arnie... well the less said the better – it involved guns.**



Pick'n'Pile – the name says it all really.

ROUND 5: PICK'N'PILE

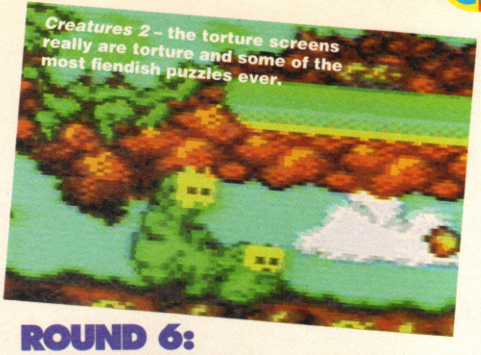
Fact 1: you can't pile one spherical object on top of another spherical object. Fact 2: if you repeat this experiment but this time build a 'chimney' to contain the two spheres, you can. That's the principal behind *Pick'N'Pile*. The screen fills with multicoloured marbles and to get them to disappear you have to pile them on top of each other. Luckily there are a few building blocks at hand for you to form channels that hold the little round blighters in place.

Obviously there is a great deal more subtly than that involved in this fiendish French puzzler. For starters the screen soon fills with a sea of marbles. Then there's the fact that the marbles only disappear when the lowest one touches the bottom of the screen. And there's always an odd number of marbles so you can't stack twos together. Then there's the tight time limit...

Pick 'N' Pile is a nasty and obsessive game. It shouldn't be fun because beating it is hard work. Yet somehow it gets under your skin. You start seeing scoring strategies that earn stacks of points. Grrr.

SCORES: Dhalsim: 10 Clyde: 5 Arnie: 0

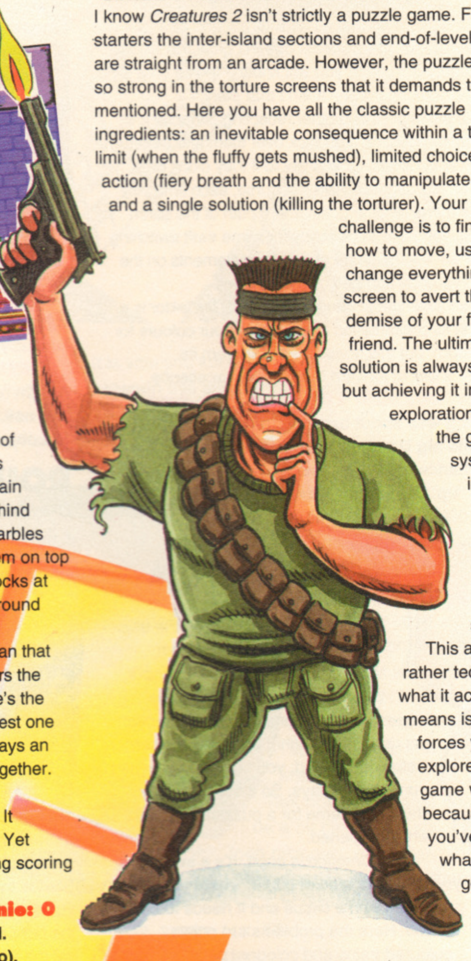
Don't ask us why. It's just the way it happened. Okay? We don't make up the rules (okay we do).



Creatures 2 – the torture screens really are torture and some of the most fiendish puzzles ever.

ROUND 6: CREATURES 2 THALAMUS

I know *Creatures 2* isn't strictly a puzzle game. For starters the inter-island sections and end-of-level bosses are straight from an arcade. However, the puzzle-side is so strong in the torture screens that it demands to be mentioned. Here you have all the classic puzzle ingredients: an inevitable consequence within a tight time limit (when the fluffy gets mushed), limited choice of action (fiery breath and the ability to manipulate objects) and a single solution (killing the torturer). Your challenge is to find out how to move, use or change everything on screen to avert the painful demise of your fluffy friend. The ultimate solution is always clear, but achieving it involves exploration of the game system and interaction with the more disparate elements of the screen. This all sounds rather techie but what it actually means is that it forces you to explore how the game works because how you've got to do what you've got to do isn't obvious. Enough of this. The *Creatures 2* torture screens are some of the most complex puzzles ever seen on any computer.



SCORES: Dhalsim: 5 Clyde: 10 Arnie: 0

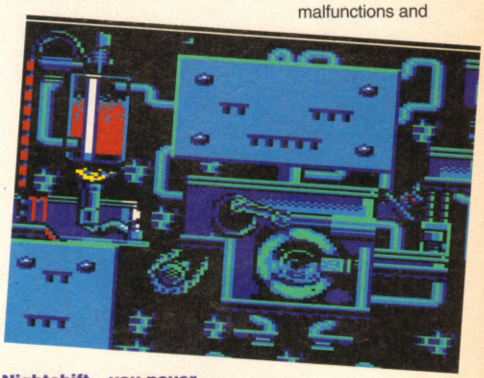
Well, what did you expect? It's his game! Dhalsim, seemed to get the hang of the flamey breath dead quick, though. Arnie just sat, watched and seemed to be rooting for the torturers.

ROUND 7: NIGHTSHIFT

LUCASARTS

Trivia fans will no doubt remember *Nightshift* as the first European game ever signed up by LucasArts (part of the *Star Wars* empire). What they probably won't remember is the reason that the mighty LucasArts signed it was because the game was a doozie (US Slang for very good).

Nightshift was effectively a day in the working life of the world's unluckiest man. He's just got a job on he production line of *Star Wars* figures and it all goes horribly wrong. The puzzle at the heart of the game is a huge machine – a 50-foot tall Heath Robinson affair. In theory raw materials drop in the top and the toys drop out at the bottom and all he has to do is sit there and watch. Sadly the machine malfunctions and you have to guide the bloke up and down the machine, flicking switches, mending fuses, fending off mice, starting generators and a million other tasks.



Nightshift – you never knew working in a factory could be so much fun/agony (delete as applicable)

The size of the machine and the number different controls offer a vast variety of permutations (Darth Vader heads on Stormtrooper bodies, etc). And you don't know quite what you're going to get until you run to the base of the machine and look. It's hectic, fast and fun, but never quite escapes the feeling it was a little too much like a job of work than a game.

SCORES: Dhalsim: 0 Clyde: 10 Arnie: 5

Clyde got the hang of the leaping, switching and changing stuff dead quick – it was just like old times. Dhalsim was phased by the capitalistic western overtones while Arnie took to the idea of building storm-troopers – but he did shoot them afterwards!

ROUND 8: LOOPZ

AUDIOGENIC

Where would puzzle games be without geometric shapes? I know that Greeks discovered geometry thousands of years ago (it was down the back of a sofa, apparently) and we wouldn't enjoy today's modern civilisation if they hadn't; but puzzle games seem to rely on it heavily.

Take *Loopz* for example. The aim of the game is to join together various shapes to form loops. Sounds easy, yes? No way. The swines who designed it only allow you to use right angles and straight bits.

If the truth be told, it's probably just as well the programmers did have this thing about 90-degree angles because it makes *Loopz* a brilliant game. In a similar manner to *Pipemania*, you're handed shape after shape and expected to make a circuit. Which wouldn't be that much of a hassle if the pieces weren't so huge as to fill the playing area. So you've got to twist and turn each bit

10 PUZZLING SIGNS

The term puzzle game is something we all throw around with casual aplomb but there is no specific definition of just what makes a puzzle game puzzling. So, what are those vital clue that give away the fact that you're playing a puzzle game?

1 TIME This is crucial. If you're not struggling against the clock it's unlikely you're playing a puzzle game.

2 NO CHOICE if the computer tells you what piece you've got to place next and tough luck if it's not what you want, you're definitely playing a puzzler.

3 LIMITED POWERS if all you can do is put down, pick up or move a block then... yup, you've got it.

4 SAME SCREEN if every level looks exactly the same (except for the pieces) then it's puzzle time.

5 COLOURED BLOCKS/BALLS Because the gameplay gets complex, coloured blocks are used for clarity (or at least that's one excuse – personally I don't believe it))

6 DISAPPEARING BLOCKS If you move together multiple objects of the same colour and they disappear, that's a dead giveaway sign of a puzzler.

7 ODD NAMES CONTAINING X OR Z These are the puzzle game standard. Failing that they have a deliberately misspelt title.

8 NEW PIECES These blighters always suddenly appear on later levels and complicate everything _ they call it part of the 'learning curve'. I call it something else.

9 DREADFUL TUNES AND FX With few graphic cues for spectacular sounds puzzlers almost all go ping, phutt or click.

10 NO SOUND AT ALL Well, it could be worse. It could be number nine!

until it gives you a chance of making that elusive – or should that be eloopzive? (*no it shouldn't – Dave*) – loop. The trouble is, it all looks so easy at the start. I mean to say, a five year old could do that. Couldn't they?

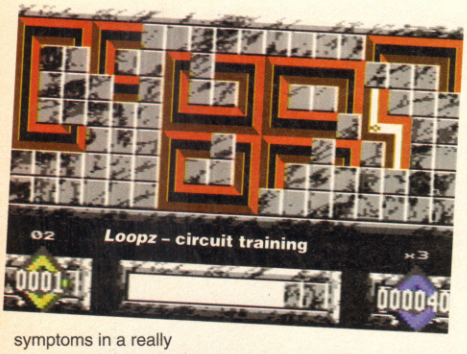
SCORES: Dhalsim: 0 Clyde: 0 Arnie: 10

For some perverse reason Arnie liked *Loopz* (*It suits his mental age! – Dave*). So much so, in fact, that he wouldn't let the others play – under the pain of being shot heavily.

ROUND 9: ATOMINO

PSYGNOSIS

Chemists have a really hard life. When they go to parties and tell folk what they do, people just ask them for corn plasters and pile cream and to explain symptoms in a really gory way. Which is probably why real chemists (you know the peeps who actually discover new chemicals and formulas) were glad when *Atomino* came out. Now they could sit at how and play chemistry games and not have to go to parties any more.



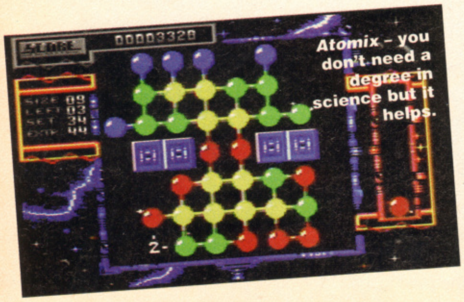
Loopz – circuit training

Atomino is a molecular puzzle game. You're faced with one of those great ball and stick models of a chemical molecule and you have to change its form in order to finish the level. This involves clicking on the coloured balls and sticking them back on in other places. It's easy at first as each of the little balls has few 'chemical' arms to link up. But as the levels progress more complex molecules come on the scene, each with three or four arms a piece, and they really make a mess of the place.

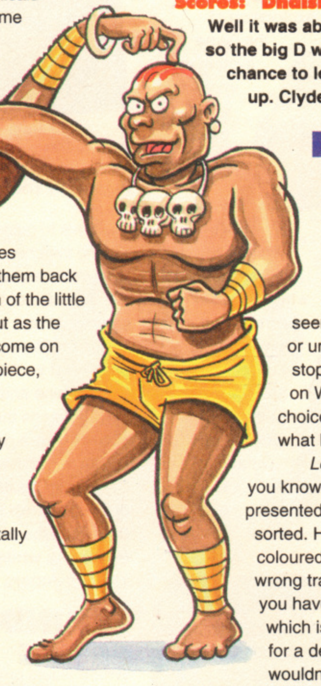
Once again you're left juggling huge amounts of different elements, desperately trying to stick them altogether in one solid level-ending lump. The chemistry angle is really a disposable theme, but it's fun to think that while playing you could accidentally discover some new form of DNA.

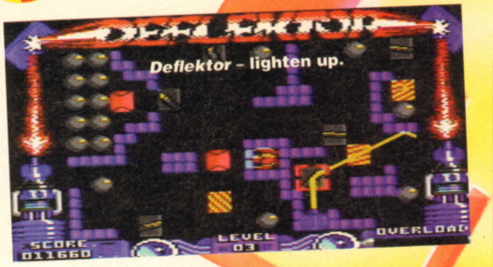
Scores: Dhalsim: 0 Clyde: 5 Arnie: 10

Dhalsim fared particularly badly, essentially as he rejects modern physics. Clyde tried, but just kept making pretty patterns. Arnie, it transpires, knows the molecular structure of TNT, C4, Semtex...



Atomix – you don't need a degree in science but it helps.





Deflektor – lighten up.

ROUND 10: DEFLEKTOR

PRISM LEISURE

A beam of light shines into a grid filled with mirrors and refractors. Your job (Jim, should you decide to accept it) is to twist this beam so that it hits a target and charges up a generator – or at very least doesn't blow the whole thing sky high. As most of you will know – it was on a *CF* Power Pack not long back – it ain't that easy.

Each of the mirrors and other reflecting surfaces are controlled by the joystick. You click over them and then turn them to suit your needs. Or you would if they didn't only turn by 90 or 180 degrees. And, of course, each time you change one mirror, lens, etc, the entire path of the beam changes. So you have to be ready for some swift switching or the laser will overheat one of the other elements on the 'circuit' and you'll be dumped out of the level.

A perfect example of cause and effect, *Deflektor* is a little brutal in its presentation (it only uses four colours for crying out loud) but this doesn't diminish from its challenge – a test of forward thinking par excellence.

Scores: Dhalsim: 10 Clyde: 0 Arnie: 5

Well it was about bending things (even light) so the big D was a natural. Arnie enjoyed the chance to let the laser linger and blow stuff up. Clyde alas, was just plain crap at it.

ROUND 11: LOCOMOTION

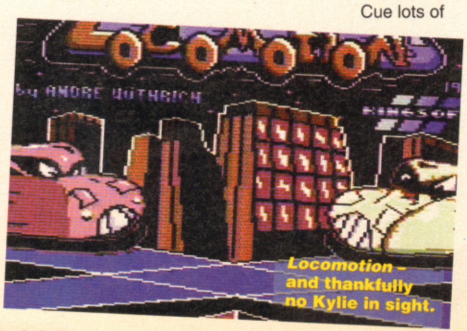
KINGSOFT

Trains don't exactly enjoy the best reputation in the world. Train spotters are ridiculed throughout the civilised world; trains never seem to run on time (except in Japan or under Mussolini); a few leaves can stop them dead; you can't go anywhere on Wednesdays. So it seems an odd choice of theme for a puzzler. Yet that's what happened.

Locomotion is good. It's a switcher – you know the type of game, where you are presented with a circuit and it needs to be sorted. Here the problems are points, coloured trains and coloured sheds. The wrong trains are all at the wrong sheds and you have to get them to the right ones – which is an excuse we've actually heard for a delay on the District Line. But, and it wouldn't be a puzzle game without a but, there are a few complications. Namely that no train two trains can use the same bit of track at the same time. Cue lots of shuffling and taking rolling stock in completely the wrong direction just to get another one vaguely near where it's supposed to be. Which all gets dead complex, but is curiously absorbing (*you train spotter – Dave*).

SCORES: Dhalsim: 5 Clyde: 5 Arnie: 0

A tight round with Dhali' and Clyde going at it tooth and nail. Arnie never even tried preferring to go back to *Loopz* instead. Odd man that Arnie.



Locomotion – and thankfully no Kylie in sight.

PUZZLE GAMES THERE SHOULD HAVE BEEN

LUGG-AGÉ: Based in an airport, your job is to shuffle cases from the planes to the collection carousels. Impossible?

TABLOIDZ: Falling circulations from the top of the screen force you to juggle numbers (20p, 25p & 30p) in order to get them up again.

ELEX-TRICIANS: Build a circuit or sit there and say "Well, guv, it'll cost you!" – the choice is yours.

FIFA OFFISHALS: Mix up common sports rules to create maximum confusion and BIG points!

MAXWELL PENZIONS: Rapidly switch numbers about a spreadsheet-like grid to earn maximum 'points' before the fat bloke falls.

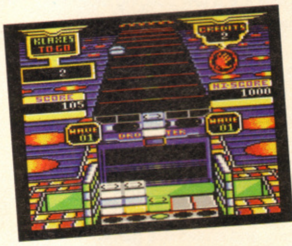
OBSCURE RULEZ: A French puzzle game in which you've no idea of what the bleedin' hell is going on.

CABINETZ RESHUFFLE: Juggle the falling ministers into their most suitable post – hilarious consequences guaranteed.

DALEK ATTACK: Stare at the screen and try to puzzle out why anybody would want to play this!

ROUND 12: KLAX DOMARK

Okay so strictly speaking this is an arcade game and not a puzzle game. But it's here and I'm going to talk about so there. And besides, everyone says *Tetris* is puzzle game and *Klax* is just a more evolved version of that.



In *Klax* you have to collect colour tiles which roll towards you along a number of conveyor belts, then deposit them in a grid in an attempt to meet the criteria dictated at the start of the level – build three diagonals, get seven Klaxes, create a large X, etc. The rolling tiles provide the necessary threat of time pressure, but it's what you do with your tile-collecting bucket that matters. That's the puzzle. Can you match the colours quickly enough, or will the time start to pressure you into a mistake?

Klax is as aggressive a puzzle game as you'll ever meet (well if you bump into a more vicious one, HIDE!). It is a simple test of you ability to stack and juggle 30 tiles but the rewards it offers are massive. It's pure, it's simple, it's fast and, as a result, massively good fun.

SCORES: Dhalsim: 10 Clyde: 5 Arnie: 0

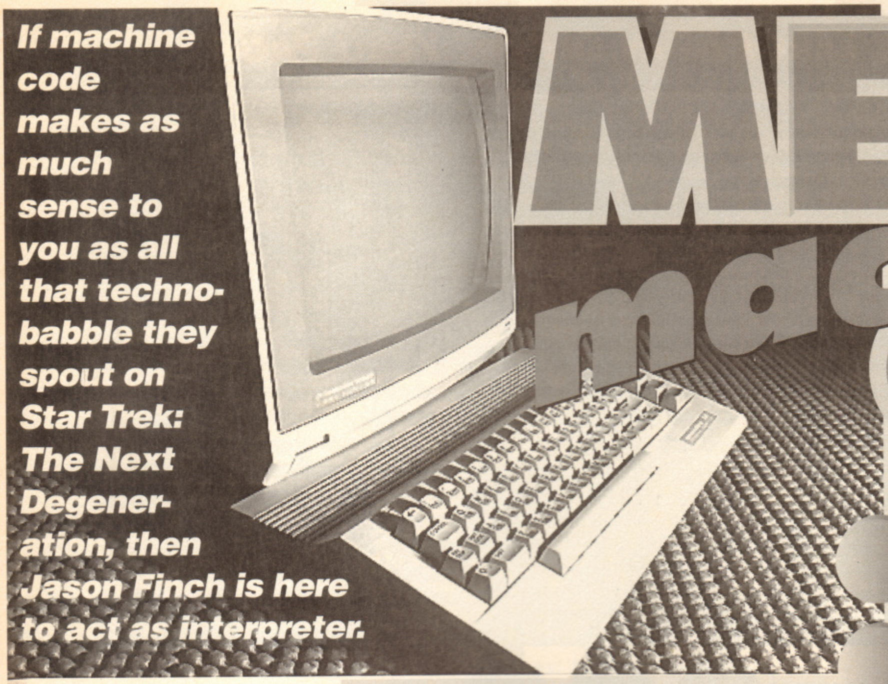
Arnie wastes his chances by insisting on throwing all the tiles back up the alley. Clyde and Dhalsim though stuck at the task. In fact, we gave them these points, although they're actually both still going at, muttering something about a warp to level 99!

THE FINAL SCORES

Dhalsim: 55 Clyde: 65 Arnie: 40

Tonight's winner is Clyde Radcliffe who takes away our exclusive *Facton Kryptor* deluxe edition *Kerr-Plunk*. The runners each each take away a copy of *The London Underground Time Table* without doubt the most fiendish puzzle known to man.

MEAN machine CODE

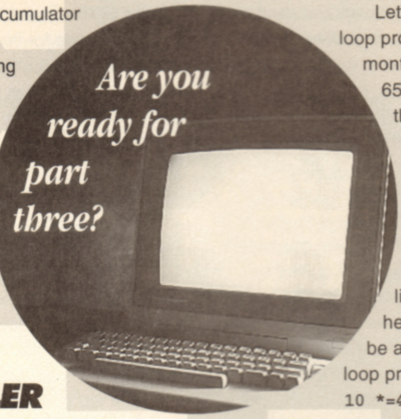


If machine code makes as much sense to you as all that techno-babble they spout on *Star Trek: The Next Degeneration*, then Jason Finch is here to act as interpreter.

Together we can beat this thing. With my expert tuition and your thirst for knowledge, we can make machine coders out of you yet. In this month's epic extravaganza I'm going to reveal a few things about indexing. I'll also be explaining accumulator and implied addressing modes, together with jumping and returning so that you can create subroutines. And because I'm so generous, I'm going to tell you all about the zero page and throw in some useful ROM routines into the bargain. What's more, all the sample proglets are written exclusively for 6510+ Assembler which we featured on the Power Pack two issues ago.

THE ASSEMBLER

Some information has been given about 6510+ in *CF* already, but I'm going to go into a little bit of detail on labels and numbers for you. In the past, my examples have given numbers in hex format. It is vital you know how to convert between this and decimal, whether by using the Action Replay or by doing some amazing mental arithmetic that would impress even a child prodigy.



Are you ready for part three?

Let's take as an example the loop program that I gave you last month. Branch instructions in 6510+ can reference labels. By that I mean that you can give a line a name such as LOOP. From then on, the assembler knows that whenever you refer to LOOP, you are referring to the machine language command at that line. Also, we can get rid of the hex notation so that things will be a bit clearer for you. So, the loop program, would become:

```
10 *=49152; START ADDRESS
20       LDY #0
30 RESET LDX #0
40 LOOP  INX
50       BNE LOOP
60       INY
70       BNE RESET
80       RTS
```

Labels are used because you don't need to know the actual address of the instruction `LDX #0` when you're using an assembler. You simply enter the above program and type **`ASSEMBLE`** to, surprisingly enough, assemble it. Enter **`TABLE`** and press the Return key; this will give you a list of labels that your program has used and the address to which they refer. From now on I'll use labels to make things easy for you. Kind or what?

LOOK IN THE INDEX

One of the most important things to learn about machine language is indexing. You know that the X and Y registers are called index registers; these are the things you use to do your indexing. But what is indexing? Well I mentioned last month that indexing was adding a number to an address to make a new address. Let's look at another rather nifty and somewhat complicated example:

```
100 *=49152; START ADDRESS
110         LDX #0
120         LDY #0
130 MAINLP  LDA 1024,X
140         STA 1024+24*40,Y
150         LDA 55296,X
160         STA 55296+24*40,Y
170         INX
180         CPX #5
190         BNE NORESET
200         LDX #0
210 NORESET INY
```

ENOUGH IS ENOUGH

Well you've got plenty of examples programs this month and there's been quite a lot for you to take in. Experiment with indexed addressing because I'm going to introduce you to the joys of post-indexed indirect and pre-indexed indirect addressing modes at some point shortly. That'll be enough to finish you off if you don't understand things like `LDA 1024,X`. Try using the ROM routines to print your name on the screen, and the stuff you learned last month about changing colours of characters on the screen. Then use indexing to copy your name and the colours to different parts of the screen.

MORE ON ADDRESSING

There are two modes to cover this month are accumulator addressing and implied addressing. They are both unbelievably simple to understand. Accumulator addressing simply means that instead of a number or address, you do something to the accumulator. For example, there is an instruction called `LSR` which stands for Logical Shift Right – I'll be covering it in next month's instalment. You can do the normal `LSR 1024` (like `LDA 1024`) or `LSR A` which will perform the operation on the accumulator instead of a memory location. A silly example would be `LDA A`. This is not actually a legal command and would generate an error when you tried to assemble it. However, the implication is that it would do `A=A`.

Implied addressing was mentioned in last month's Mean Machine Code and is used when the number following the instruction is implied from the instruction itself. `DEX` implies that the X register is to be decremented by just one. `RTS` implies that you are returning to somewhere that you needn't specify.

ZEROING IN ON THE ZERO PAGE

Zero page is simply 256 bytes of memory right at the start of your C64's chunk of brain cells. The memory of the C64 consists of 65,536 bytes which are divided into 256 blocks of 256 bytes. Each block is known as a page. The first page covers locations 0 to 255 and it is this page that we call zero page. I suppose page zero would have been more logical, but Commodore like to do everything backwards.

The C64 uses these locations to store important information concerning Basic programs, file transfers from tape and so forth. But there are a few that you can use yourself – for instance, locations 251 to 254 are free. This enables you to do things like:

```
100 *=49152
110      LDA #0
120      STA 251
130      LDA #39
140      STA 252
150      LDY #0
160 MAIN LDX 251
170      LDA 1024,X
180      LDX 252
190      STA 1984,X
200      INC 251
210      DEC 252
220      INY
230      CPY #40
240      BNE MAIN
250      RTS
```

You should be able to work out why the first line of the screen is duplicated along the bottom in reverse. Or at least it should be if you've typed the assembly program in correctly! It uses locations 251 and 252 to keep track of two index pointers which are incremented and decremented by one each time through the loop. The Y register keeps track of how many times the loop has been done – 40 makes it do the whole of the top line. So now you know.

```
220         CPY #40
230         BNE MAINLP
240         RTS
```

This takes the first five characters from the top left of the screen and repeats them all the way along the bottom of the screen. The Basic equivalent of that listing would be this:

```
100 X=0
110 FOR Y=0 TO 39
120 POKE 1024+24*40+Y,PEEK(1024+X)
130 POKE 55296+24*40+Y,PEEK(55296+X)
140 X=X+1:IF X=5 THEN X=0
150 NEXT Y
160 END
```

There are plenty of other methods of addressing, but we'll look at those in a future issue (well, we've got to keep you coming back somehow). I can't really explain all the uses od addressing here because there are literally hundreds; believe me, you will instinctively know when you need to use it!

MAKING IT JUMP

In Basic you use `GOTO`s and `GOSUB`s to jump about in a program. In machine language you use `JMP` and `JSR`. So, let's say you had a machine language program that started at `49152` and you had written another one that did something spiffy which was located at address `50000` onwards.

You could do a `JSR 50000` in your first program to call up the second program. At the end of it you do `RTS` to get back. Let's do some comparisons, just for the hell of it, yeah? What do I care? I'm young and reckless – I want to be free, to do what I want to do, to be what... (*yes, okay, Jason, calm yourself down and let's get back to the machine coding, shall we? – Dave*)

Imagine the following Basic program:

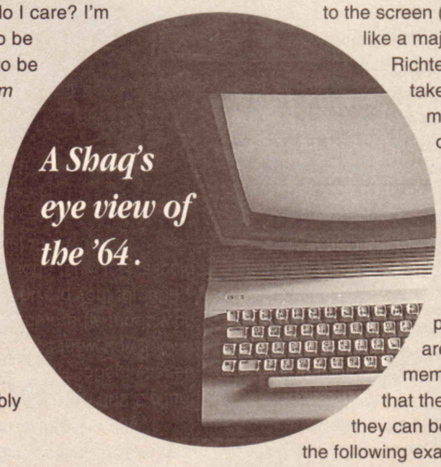
```
10 A=PEEK(1024)
20 IF A=1 THEN 40
30 GOSUB 50
40 END
50 POKE 1024,48
60 RETURN
```

The exact equivalent in assembly language would be:

```
5  *=49152
10         LDA 1024
20         CMP #1
25         BEQ LINE40
30         JSR SUBR
40 LINE40  RTS
50 SUBR    LDA #48
55         STA 1024
60         RTS
```

You'll notice that there are two `RTS` instructions in there – okay, for the terminally lazy and completely braindead I'll point out that there's one at line 40 and another one at line 60. The one at line 40 simply returns to Basic after you do a `SYS 49152`. In effect, the Basic `SYS 49152` command is the same as a machine language `JSR 49152` and therefore to `RTS` makes complete, total, logical sense (don't argue – it does). The `RTS` at line 60 returns to the address immediately following the `JSR SUBR` line. It works exactly the same as a `GOSUB...RETURN` combination.

I'VE GOT THE KEY


A Shaq's eye view of the '64.

An extremely useful thing to be able to do in machine language is to read from the keyboard and send stuff to the screen (okay, so it doesn't sound like a major quake on the excitement Richter scale, but you'll have to take my word for it). By that I mean that the C64 checks out which key is being pressed and displays some corresponding characters on the monitor. To do both of these things you can use ROM routines. These are special pieces of machine code that are part of your C64's memory system; this means that they cannot be changed, but they can be accessed and used. Take the following example, for, er, example:

```
100 *=49152; START ADDRESS
110      LDY #0
120 READ JSR $FFCF
130      STA 1024,Y
140      INY
150      CMP #13
160      BNE READ
170      RTS
```

This example uses indexing together with a ROM routine and will simply expect you to press some keys, ending in the Return key. Imagine you wanted instead to display some text on screen. There are plenty of ways to do that, but I'll show you just a couple. First:

```
100 *=49152; START ADDRESS
110 LDA #'C
120 JSR $FFD2
130 LDA #'F
140 JSR $FFD2
150 LDA #13
160 JSR $FFD2
170 RTS
```

The above uses a `ROM` routine at `$FFD2` to display a character whose ASCII code is given in the accumulator. The `LDA #'C` is equivalent to `LDA #67` but the 6510+ Assembler is able to convert the `'C` into the ASCII code for that character. The `LDA #13` in line 150 is the code for the Return key. A slightly more sophisticated version is shown here:

```
100 *=49152; START ADDRESS
110        LDA #<TEXT
120        LDY #>TEXT
130        JSR $AB1E
140        RTS
150 TEXT BYT "FORMAT",0
```

This is yet another ROM routine – at `$AB1E` – which displays a string of text starting at a location defined by the accumulator and Y register. The accumulator is the low byte and the Y register is the high byte. The `<` and `>` symbols allow the 6510+ Assembler to calculate the correct values for you. You must ensure that the strings finishes with a null byte (`,0`).

For a complete list of Kernel ROM routines (ones like `$FFCF` and `$FFD2`) it'd be worth getting hold of a Programmers' Reference Guide as there are too many details to list here.

NEXT MUNF

"What joyous snippets do I have for you next month?" I hear you ask (*they must have blimmin' loud voices then – Dave*). Well, I'll be telling you all about the rest of the branching instructions, together with zero page addressing and relative addressing. The arithmetic, logical, shift and rotate instructions will also get a look in and I'll be backing this all up with a scattering of example programs so you can get that all important hands-on experience. Be here – you know it makes sense.

Who needs to upgrade to another machine when you can upgrade your C64? Whether it's speed, extra memory or better sounds and graphics you're after, there are add-ons for the Commy that soup up its performance to match any 16-bit machine. Wanna hear some more? Russ Michaels of the Electric Boys has a vested interest in keeping you informed...

WELL'ARD

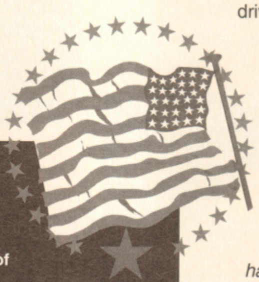
Your C64 is one mean machine and don't let anybody say otherwise. But if you do know any mockers or unbelievers, show 'em this feature and that'll silence 'em. Curb any dastardly thoughts of upgrading to an Amiga and stop people wibbling on about the awe-inspiring specs of the SNES, 'cos there is some impressive hardware available for the C64 that'll make Commodore's premier machine kick some serious butt.

The problem with the C64 is its public image – to most people it's an old-fashioned, naff-looking computer with only 16 colours, a measly 64k of memory and a tape deck. Man, it's so ancient and so slow, and there's no new software.

Doesn't sound too impressive, does it? And that is exactly the set-up that most C64 owners have. So who can blame people for being sceptical? And is it such a wonder that the demise of the C64 is constantly being predicted?

Well, wake up people and smell roses, 'cos it doesn't have to be this way…

- 16 colours? Pah. The standard number of colours on the C64 is 28 without any sort of tricks or programming, just a bit of colour mixing. And when you start interlacing you get over 1,024 colours. Not bad, eh?
- What about the measly memory? Okay, so that's how much memory your C64 comes with, but who says it has to stay that way? What would you say if I told you that you can have 16 megabytes of memory? That's 16,384k or 16,777,216 bytes. Well, believe it.
- And how about that ancient tape deck? Who needs it? Why not just get yourself an 800k 3.5 inch floppy disk drive; that's 3,200 blocks of storage space, or, in high density mode, 1.6mb (over 6,500 blocks).
- Or if you want some serious storage space then how about a hard drive? Ranging from 40mb to 1,000mb, they provide from 163,840 to 4,096,000 blocks. But what about the speed, because we all know that the access speed of Commodore drives isn't much cop? Well, that's been sorted too. Just insert a JiffyDOS chip into your drive and voila, you have speed.



Wondrous, isn't it? So what is all this stuff? Well, it's called hardware and a lot of it has been available for ages from the good ol' US of A, but it just hasn't had much exposure in the press (*we hang our heads in shame – CF crew*). But now's the time to set that to rights. Here are a few of the more impressive add-ons you can get for your C64…

RAMLINK

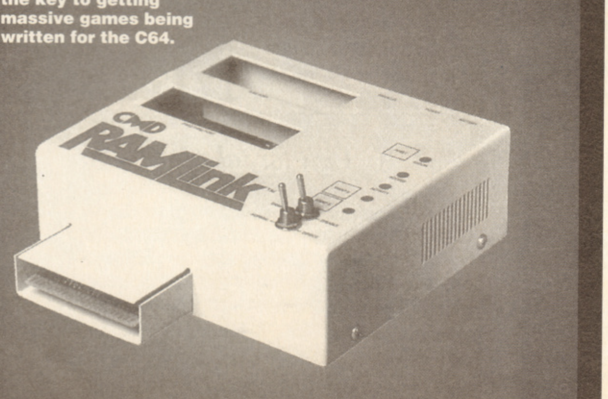
This is the chappie that allows you to have between 1mb and 16mb of extra memory (RAM). On the internal RAMcard are four slots, each of which can house either a 1mb or 4mb SIMM (available from any computer system/hardware supplier). RAMlink has a built-in RAM port so that you can connect existing RAM expansion units or GEORAM. It's also a pass-thru port which allows you to connect your cartridges.

RAMlink has its own built-in DOS and acts like a RAM-based disk drive, which means blindingly fast access, 400 times faster than a common-or-garden 1541 disk drive, in fact, and you can access it with standard Commodore DOS commands as though it were a disk drive (except, of course, the access will be instant).

So what practical use does RAMlink have? Imagine your favourite multiload game – how long do you have to wait between levels, loading sequences, title sequences, etc? Too long, that's how long. But you don't have to put up with it. You could transfer the entire game onto RAMlink so that the whole game is in memory at once, and so there would be no waiting whatsoever – when you complete level one you'll go onto level two immediately.

How about you serious computer users? What about having your word processor, database, speadsheets and whatever other utilities you feel like all booted into the RAMlink in one go; now you can just swap from one to the other. No more resetting the computer and loading the other programs one at a time; you can use them all at once. How can you live without such a luxury?

Those are the advantages of using RAMlink with existing software, but what about future releases? If loads of C64 users owned RAMlinks then more software would be written specifically to take advantage of its capabilities. No memory limitations means bigger games with better graphics and sound. Check out our Mean Machine demo on this month's Power Pack. Those two interlaced pictures take up almost the entire memory, so graphics like that can't be used in a game. But with a RAMlink, no problem. And with such possibilities, what software company could resist the opportunity to start releasing software geared for the device?



The RAMlink could be the key to getting massive games being written for the C64.

JIFFYDOS

This handy little beast is a disk drive speed enhancement system, which enables loading speeds of up to 15 times faster than normal loading speed.

JIFFYDOS is a replacement chip set for your computer and drives ROM, which means it is an integrated part of your system, therefore making it fully compatible and unaffected by copy protected programs that would normally disable your fastload. And because JIFFYDOS is internal, you still have your cartridge ports free, so where your Action Replay becomes ineffective, JIFFYDOS keeps on going.

JIFFYDOS is the only system compatible with all 1541, 1571, 1581, FD and HD drives in 64 and 128 mode. Not only does it provide speed enhancement, but also its own built-in disk operating system, simple keystroke commands to perform all disk functions (like format, load, save, verify, scratch, etc) toggling between printer and screen output, a two-drive file

copier… the list goes on. Basically, you can have an MS DOS environment for your C64/128, and it's all built-in as soon as you install that chip (which is simplicity itself). And once you have the replacement chip in your computer all you need is one in each drive unit to make them all fully compatible. Can you live without one? Probably, but think how much better living with one would be.

■ FD2000, FD4000

These two floppy disk drives (that's what the FD stands for if you hadn't worked it out yet) are high capacity 800k 3.5-inch models, both of which are fully 1581 compatible and also have 1.6mb storage modes. The FD4000 has a 3.2mb storage mode as well – that's an amazing 3,276k on one floppy disk, a higher capacity than even Macintoshes or Amigas have available.

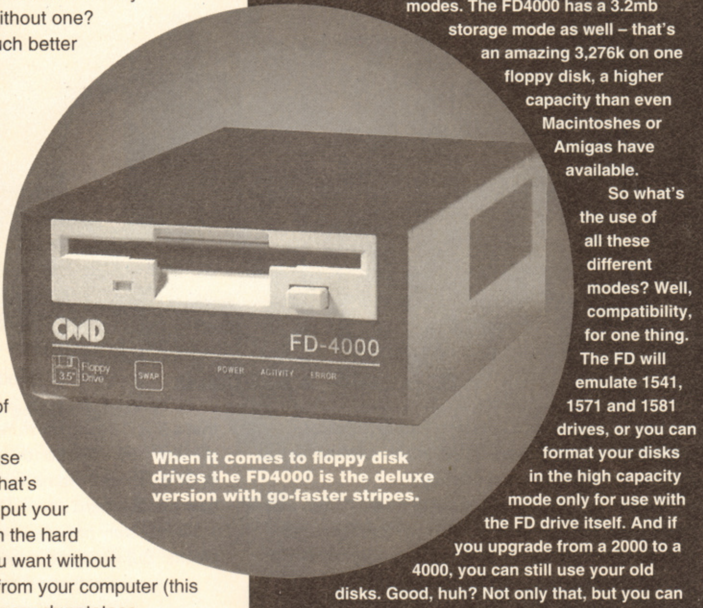
So what's the use of all these different modes? Well, compatibility, for one thing. The FD will emulate 1541, 1571 and 1581 drives, or you can format your disks in the high capacity mode only for use with the FD drive itself. And if you upgrade from a 2000 to a 4000, you can still use your old disks. Good, huh? Not only that, but you can also format your disks in 1.44mb and 2.55Mb formats for use with MS-DOS computers (in other words you will be able to transfer text and data files between your C64 and a PC, though not programs).

But still, you may wonder, why would I want a 3.5-inch drive, and what use is so much disk space? Surely this is just too much of a good thing (unless you're giving them away the drives, of course)? Here's an answer I prepared earlier, to convince you that these floppy disk drives are worth paying good money for…

Your 5.25-inch disks and 1541 disk drive are, of course, infinitely better than cassettes, and all software still comes through on 5.25-inch disks, but these disks do take up an awful lot of space, and you tend to get only one program per disk when you buy commercial stuff. But if you had a high-capacity 3.5-inch disk drive, in 800k mode you could store five side's worth of stuff from a 5.25-inch disk on a 3.5-inch disk. In 1.6mb mode you could store the equivalent of 10 sides, and in 3.2mb you could store the equivalent of 20 sides.

So if you transferred all your *CF* covertapes, utilities, PD software, etc, onto 3.5-inch disks, how much easier it would be to find a specific program; instead of having 100 disks to look through, you would have only, say, 10. And, of course, those 3.5-inch disks are a lot more sturdy and less likely to bend or corrupt. You can partition your disks into sub-directories to make accessing a lot easier, with one directory for each variety of game or utility.

But don't let this deter you from having a 1541 or similar 5.25-inch drive, because you still really ought to have one (and if you haven't got one, why not?). If you only had a 3.5-inch drive you wouldn't be able to transfer the software to begin with, as most of it is produced on 5.25-inch disks.



When it comes to floppy disk drives the FD4000 is the deluxe version with go-faster stripes.

■ HARD DRIVES

These are the big boys on the block. Most PC owners need one of these drives just to use some software (even basic stuff like address books or word processors), but you can have one just because you want one – proving once again the advantage of having a C64.

Imagine not having to use floppy disk at all, because that's how it would be. You could put your entire software collection on the hard drive and load whatever you want without ever having to move away from your computer (this is a good bit of hardware for couch potatoes especially). And, as with the FD drives, you can partition and sub-directorise (*hey, like that word – Dave*). The speed of the hard drive is unsurpassed, and when connected to a parallel port on the RAMlink it rivals the speed of PC hard drives – in other words, loading in the blink of an eye.

The sizes of these drives range from 40mb to 1,000mb. A 40mb hard drive is equal to 246 sides of a 5.25-inch disk, and that's the minimum. Think what you could do with 1,000mb (because we can't be bothered to do the maths, basically).

Okay, so that much disk space might seem a bit excessive, but let's say you want to start a bulletin board system (BBS). To be able to have a decent amount of software on-line then you would definitely need a hard disk. Or, if you run a public domain library, think how much easier it would be to have your entire disk collection on just one drive; all you'd need to do is copy the games straight from hard disk to floppy – easy, fast and efficient.

You could say that the hard disk is an alternative to the RAMlink. With extra capacity and speed your software will run that much faster and more smoothly, but you really need to be a die hard C64/128 fan to appreciate what a hard disk has to offer. CF

CMD
HD-20
Hard Drive

A hard drive offers you some serious storage space.

■ WELL, THE FUTURE IS IN YOUR HANDS, FOLKS

Well, folks, there you have it. With just this brief overview, you can now see how much more there is to your Commodore than you might have thought. Those who believed there was little life left in the old box, will be biting their tongues now, and this is just the beginning. There is much more to this hardware lark than we've covered here. But rest assured, we plan to go into more detail in future issues.

Ah, but I see another question quivering on your lips. What good is this hardware when there is no new software to use on it. Well, surprise, surprise, there is years' and years'-worth of disk-only software available to you that you probably never knew existed, from the USA and all over Europe. And companies like mine, EBES (Electric Boys Entertainment Software) are doing our darnedest to make sure it gets to the UK. And there's still new software being produced by these foreign companies right now.

Now the catch – at present all this amazing hardware is only available from the USA, and to order it from there would cost you a small fortune by the time you have included the postage, packaging, customs and excise, tax… But fear not – EBES to the rescue (yes, this feature has been one big advert). We have agreed with Creative Micro Designs, the company in the States who produce this hardware, to be their UK distributors and provide all you lot with all the gadgets you will ever need to make your Commy your pride and joy, not to mention the envy of all your SNES-, Megadrive- and Amiga-owning friends who thought the C64 was just a doorstop.

But alas, there is one hitch. Before we can do this, we need to know if you lot actually want to upgrade your C64s. As we've hopefully pointed out there really is no need to upgrade to a new machine because this hardware will allow the C64 to wipe the floor with all the competition. If we get enough response, then we'll go ahead with importing this hardware; if not then, sorry, but we're not a charity.

So, basically, it's over to you, now. Do you want to invest in the C64's future? Or let it go the way of the dinosaurs? We're not saying that this hardware is the ultimate solution for getting the C64 back on top of the home computing pile, but it's one of the best chances it's got. And it's a blimmin' good chance if enough people get behind it.

Interested? Then write to us here at:
Electric Boys Entertainment Software,
917b Brighton Road,
Purley,
Surrey CR8 2BP.

COMING SOON

Last issue we told you about that there was bucket-loads of top-quality software in Europe just waiting to be snapped up. Well, just in case there were any sceptics, Dave Golder takes a look at a selection of the titles from Germany alone.

Proof! We weren't telling porkies last issue when we said that European companies were churning out tons of top-notch games that we rarely get to see in the UK. Most of the games featured over the next couple of pages have been sent to us from Germany's *CP Verlag* magazine, and at least two UK companies (The Electric Boys and Visualize) are currently in negotiations to get the stuff on-sale over here.

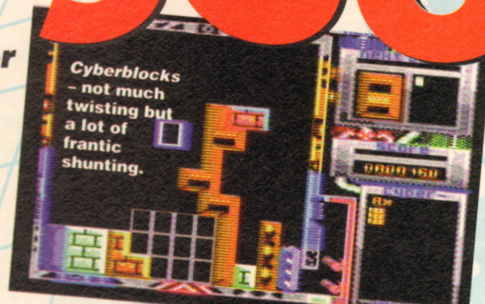
So, if you're impressed by what you see over the next couple of pages, you can do your bit. Write to CP Verlag at **Isarstrasze 32-34, 90 451 Nurnberg, Germany ☎ 010 911/96832-0** and tell 'em that you'd buy this stuff if it was on-sale over here – it could help speed things up a bit.

Now the right eye Mr Lion – can you read the top line?

LIONS OF THE UNIVERSE

This is a must for all fans of classic-style horizontal shoot-'em-ups. It's got the lot – decent power-ups, high-speed action, a huge variety of enemy ships with different forms of attack, end-of-level guardians and a decent 'just one more try' factor. What it lacks in originality and diversity it more than makes up for in sheer energy and thrills.

CYBERBLOCKS


Cyberblocks – not much twisting but a lot of frantic shunting.

What we have here is a weird twist on *Tetris*. Or rather *Tetris* without any twisting involved. You can't rotate the blocks, y'see, you can only move them left and right. But what you can do which you can't in *Tetris* is move the blocks once they've fallen into place. The playing area is also about three times the size of the screen and you aren't trying to get lines, but rather blocks, and you get bonus points for creating certain shaped blocks.

Okay, so it's derivative and shows its roots like an unnatural blonde who's completely out of peroxide, but it's still different enough from *Tetris* to make it a fascinating and addictive addition to the puzzle game genre. It won't help the unconverted see the light but converts been carrots for years anyway (er…sorry?).

SUPERNIBBLY

Remember that classic game, *Centipede*? Y'know, the one that everybody who ever dabbled with Basic programming tried to write a version of. Basically, you started off with a short centipede on a screen dotted with power pellets; you had to move the insect around the screen so that it could eat the pellets and grow longer. This seemingly simple task became considerably more tricky when the 'pede grew so long it was in danger of eating its own tail.

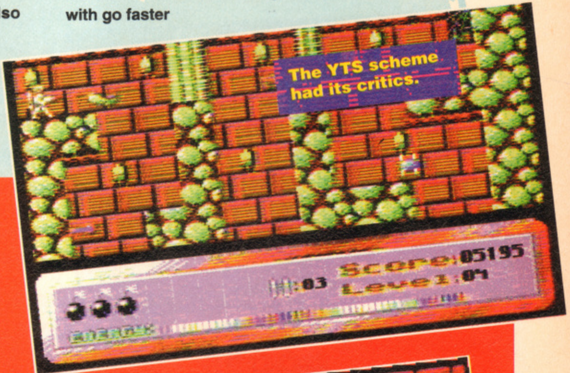
There have been loads of variation on the theme, and this must rate as the twin-cylinder, GX model with go faster

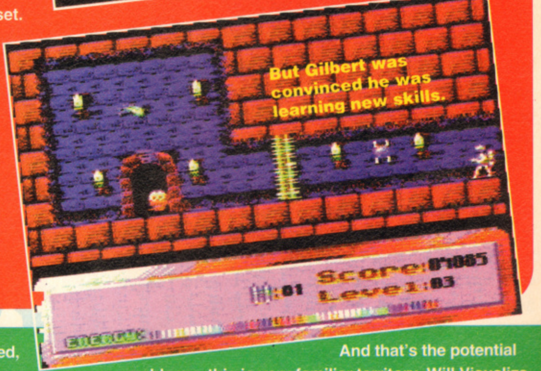
DARK CAVES

Now we know what happened to that bloke in *Exile*… he worked out how to use the stabilisers on his jet pack so that he'd stay upright and went off to explore the dark caves of… er… wherever this game are set.

He flies around the flip-screen subterranea shooting, bombing or avoiding anything that looks hostile, in an attempt to reach the exits before his energy runs out – it can be soooooo embarrassing running out of energy in front of all those nasty aliens.

Graphically, it's a bit sparse and the gameplay tends towards the mundane at times but it's reasonably challenging and there's enough going on to make it keep it just the right side of okayish. And it's pretty huge.


The YTS scheme had its critics.


But Gilbert was convinced he was learning new skills.

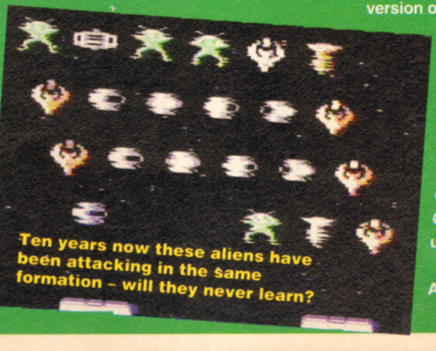
MEANWHILE... BACK IN THE UK

Visualize, the new, independent software label set up by the prolific Jon Wells, has announced four very different new games set for release in the next few months. Jon himself has been involved in the programming of three of them while Michael Arrowsmith of MAD (Michael Arrowsmith Designs) has had a hand in the programming and graphics of the lot of 'em.

Next month we'll hopefully be reviewing the first of the bunch set for release, a puzzler called *Slidez*, and previewing the most ambitious title to be announced, a 'sick and twisted' creation called *Anomaly*. But for now, here's how the other two are shaping up…

STARBURST

Space Invaders is dragged screaming into the nineties, with this non-stop blaster that Visualize hopes will bury all memory of *Super Space Invaders*. Set in the year 2304 on a Martian colony under alien attack, it features tons of power-ups, big bad motherships and wave after wave of alien slime to eradicate. You know the score.


Ten years now these aliens have been attacking in the same formation – will they never learn?

And that's the potential problem… this is very familiar territory. Will Visualize manage to bring something a new and fresh to such a well-worn format? Or will it just be a snazzier-looking version of *Space Invaders*? I reckon it's tough act to pull off, but I also reckon they've got a good chance of pulling it off.

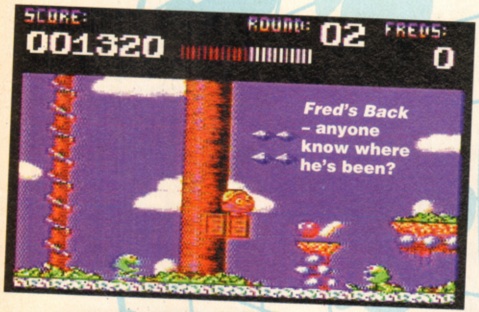
The music should be good, anyway – it's being provided by a couple of 'incredibly talented' Germans. Incredibly talented Germans seem to be popping up everywhere these days. *Starburst* is due out in August on tape and disk.

Visualize can be contacted at 9 De Grey Road, King's Lynn, Norfolk, PE30 4PH stripes. The presentation is very glossy and the levels takes place in *Pacman*-style mazes which are extremely difficult to navigate around without bumping into yourself.

FRED'S BACK 3

If this is the third time Fred's come back does that mean this is the fourth *Fred* game? I mean, was the first game just called *Fred*, the second one *Fred's Back* and the third one, *Fred's Back 2*? Or was *Fred's Back* the first game? In which case, where's he back from? And why did he come back?

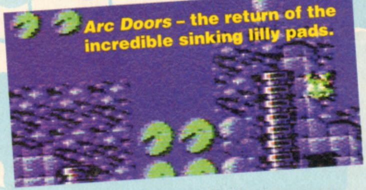
But enough philosophy. He's back and that's a GOOD THING, because this game is pretty darned good. It's clearly been designed as the C64's answer to *Mario* (presumably leaving *Mayhem* to take on *Sonic*). It's a great little platformer with loads of pick-ups and hordes of enemies. It's a shame that you don't seem to be able to kill the nasties, though; you can only avoid them (unless there's a power-up I've yet to discover). But despite this one minor gripe, *Fred's Back 3* is fast, colourful and constantly playable, it'll be a shame if this never makes it to UK shores.



Fred's Back – anyone know where he's been?

ARC DOORS

Frogger crossed with an exploration/shoot-'em-up-style game set on some alien planet in the 30th century is probably the best way to describe this (and even then that's a pretty lame description). As opposed to steering your frog across a road and a river, you need to navigate it around the various levels. It's still mainly a matter of timing as you try to get the amphibian to leap onto platforms at the right moment, but at least this time around he's armed (what with, I'm not entirely sure, but something shoots out of his mouth). I haven't got a clue what the name means, though.

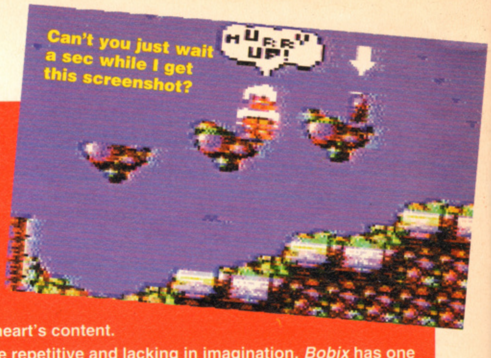


Arc Doors – the return of the incredible sinking lilly pads.

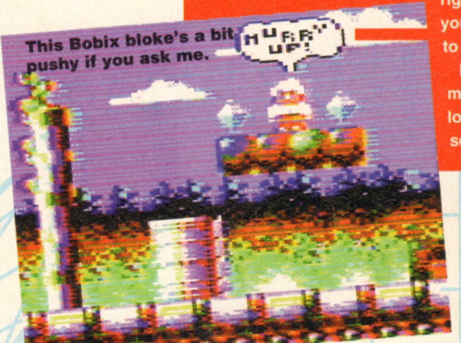
BOBIX

This is another console-inspired platformer, featuring some stunningly good graphics, vast levels and a hero who dies in exactly the same way as *Rick Dangerous*. Unlike *Fred*, *Bobix* is armed and dangerous right from the word go, so you can blast those enemies to blobby mushiness to your heart's content.

Immensely playable, if a little repetitive and lacking in imagination, *Bobix* has one major drawback – it takes aeons to load. And it insists on reloading every time you lose all your lives and have to start the game again. It's a real shame, because this seriously reduces the the game's impact.



Can't you just wait a sec while I get this screenshot?



This Bobix bloke's a bit pushy if you ask me.

BLACK & WHITE

A cross breed of Solitaire, Othello and Chess, this is one seriously complex puzzle game. Not complex in terms of rules but in terms of tactics. Okay, I admit it – the computer kept beating me.

But if you like the cerebral challenge of a really good game of chess, then this should be up your street. Admittedly, though, of all the games we've seen from CP Verlag, this is the one that really has more the ring of a decent PD game than something with commercial value. It's good, but not that good.

DISK-OVERY

So, what's the overall impression? A couple of the games are dead impressive, a couple little more than superior PD games while the rest are decent enough and certainly better than a lot of stuff the major software companies expected us to pay out for over the last couple of years.

One thing to remember is that all these games are on disk only. Sorry, but that's the way it is in Europe. You really should invest in a disk drive if you can afford it. There are loads available second hand in the Buy-A-Rama (see page 16). On the other hand, if you want a new one, The Electric Boys are looking at the feasibility of importing drives in bulk from the US, so get in touch with them at 917b Brighton Road, Purley, Surrey CR8 6SZ ☎ 081 668 7595.

BREAKTHROUGH

Despite the name, this is not a *Breakout* or *Arkanoid* clone. Nope it's horizontally-scrolling, SF shoot-'em-up which, Visualize promise, will be packed with the most powerful power-ups, the nastiest nasties and biggest end-of-level guardians they can pack into the program.

It's set for an early August release, but at the moment it's actually being completely reprogrammed to make sure that it really does blow you socks off (even if you're wearing Doc Martens at the time), so be prepared for a bit a delay. It'll be available on both tape and disk. Price to be announced.

Breakthrough – some serious fire power.

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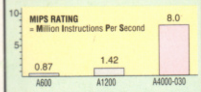

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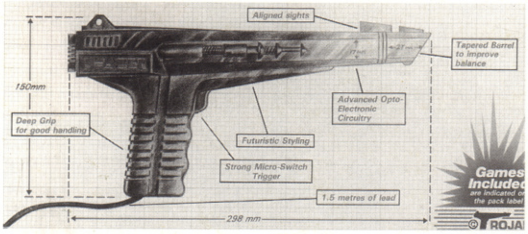
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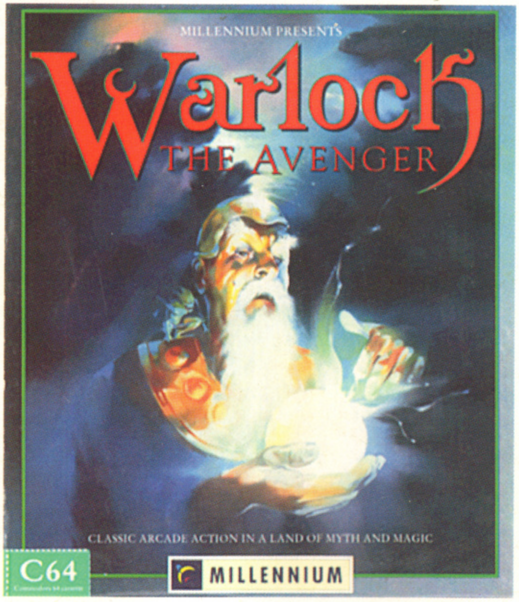

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